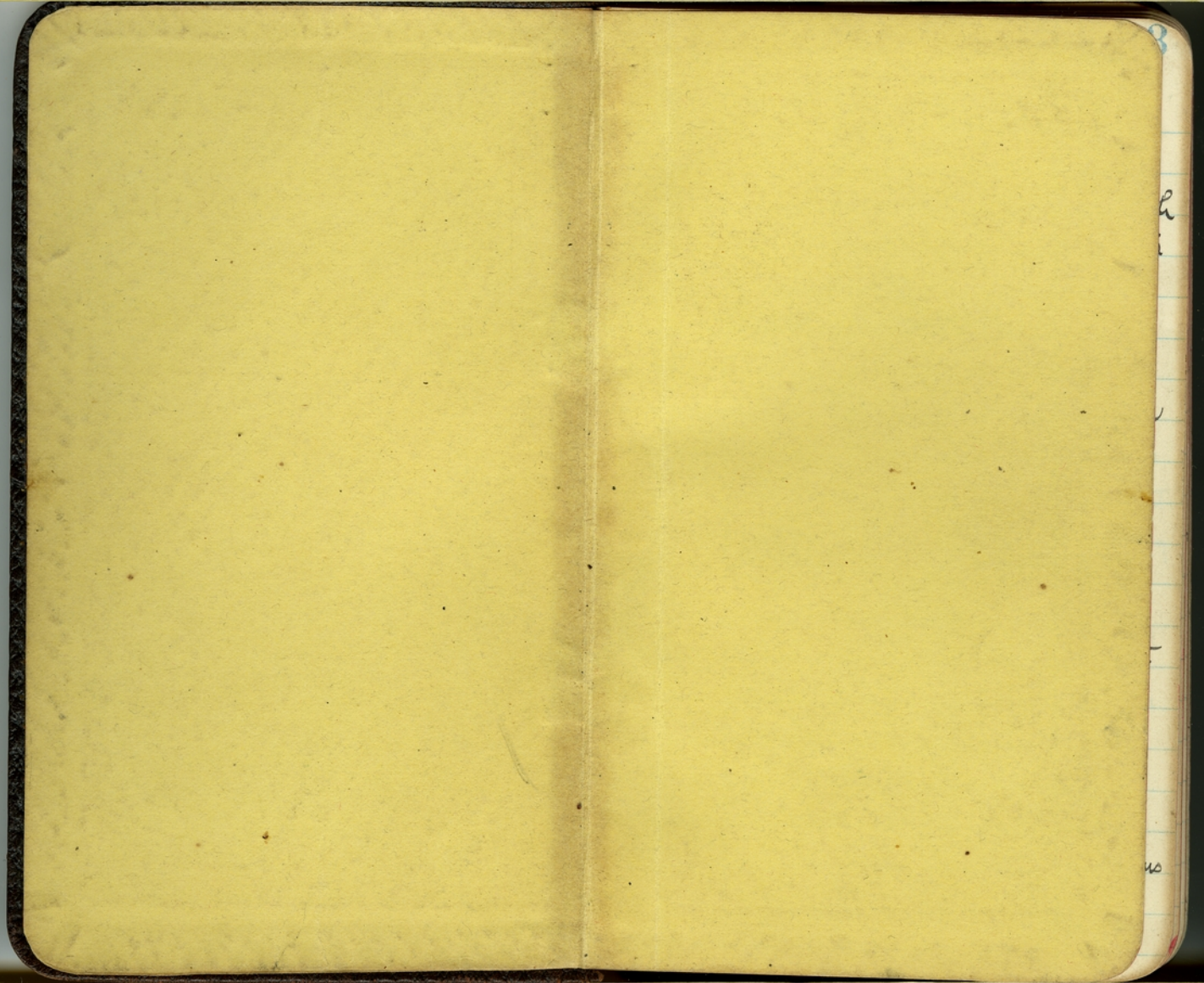




Field Book
of

Willis L. Jepson.

Berkeley, Sept. 5, 1900.

Went up Strawberry Cañon which seems desolately dry after the High Sierras.

Cornus pubescens is still putting out new leaves on sterile shoots. I do not now recall just when growth began but it must have been as ^{early as} April. And then - consider the Field Oak on the banks of the stream! They completed in two or three short weeks their whole season's growth at the end of last March or in April. Winter buds are well advanced on the shoots of *Cornus* and also on the alder. (*A. rubra*).

Berkeley

I came across a bush of *Solanum umbelliferum* in Strawberry Cañon which presented a most curious sight. It had perhaps 20 upright or ascending stems or branches - and they were all utterly leafless, destitute absolutely of flowers and fruits. The stems were green or greenish. How very much this plant suggested a normally leafless desert shrub!

Sept. 5, 1900.

Miss Semple of Kentucky has been at our table for several days - a gifted and traveled lady who vividly described her camping experiences in the Cumberland Mountains. She speaks of the divide as being without a depression or pass for many miles - saving the Cumberland Water Gap. Hence the Kentucky mountaineers will not be civilized by the coming in of many or indeed any railroads, so expensive & difficult would it be to lay a road across the crest.

Point Reyes Penins.

To be looked for.

Pimpinella - bristly hillside
 Dryond schoolhouse, with
 west exposure.

Sidalcea calycosa - in marsh
 just below Russell's Cream
 Factory, almost bordering
 salt-marsh

Umbellifer, fistulous jointed
 leaves, with preceding ones
 near head of Abbott's Lagoon,
 southern arm, in a little
 mud flat on east side of
 road.

Cicuta - begins at black-
 smith's shop, along creek
 to head of salt marsh

Campanula cinnaeifolia +
Lilium maritimum, are

Point Reyes Penins.

growing together by a little stream
 1/2 mile below summit of divide,
 going out.

Laethenia macrantha, right at
 Point, in Point Reserve.

Stellaria littoralis, plentiful
 in marshy places (Russell's
 Creamery).

Potentilla Kelloggii, abundant
 toward sand-dunes on ocean
 side of Russell's Factory.

Layia carnosa, with preced.

Maianthemum bifolium, in
 marshy places between
 stations just noted. Also

Habranaria maritima.

Gentiana Oregona, at Clausen's,
 1 1/2 mi. beyond P.O.
 Chicken Point.

Point Reyes Pinn. S.

Schoolhouse is up gulch
from Reez's Farm, from
Drake's Estero.

Post Office = 1 mile beyond Reez's.
Blacksmith shop = between Divide
and Estero.

Reez's Ranch = near head of
Drake's Estero.

Glaussen's Farm, 1 1/2 mi.

Beyond P.O. - "exceedingly
hospitable people".

Sept. 15, 1900

Box Elder - tree just across
head of Tomales Bay, from
Point Reyes Station.

- No. 1163. *Eryngium armatum* ^{C. + R.}
Common on the G. Ranch.
Stems erect or decumbent.
G. Ranch.

- No. 1164. *Hypochoeris*
Abundant in the pastures
on the G. ranch. Expanded
head in anthesis 1 in. broad.
(Lilaeopsis lineata Greene. G. Ranch.

- No. 1165. *Eryngium*-like Umbellifer
(*L. occidentalis* C. + R.). Stems, both the
horizontal rootstock-like
ones and the short erect
peduncle like ours (all sub-
terranean) very fistulose.

Point Reyes Penins.

Leaves fistulose and articulate, not so noticeable in the young material. Clusters or umbels right on the ground, the pedicels in fruit recurving. Flowers dull white with a slight pinkish-brown tinge. Petals plane, acute, without inflexed tip. Fruit subglobose, the carpels joined by a broad commissure. Cross-section shows a flat oil-tube in each interval and perhaps 4 on the face. There are two marked white spots near each end of the commissure. Abbott's Lagoon, in a mud flat South-east.

Sept. 14, 1900.

No. 1166. *Cirsium quercetorum*. The style is protruded a very long way and thus the whole head has a very positive appearance. Is not the difference between this and *C. edulis* very marked as to this feature of the heads? - Fields near Abbott's Lagoon.

- *Jaumea carnosa* - Abbott's Lagoon. Rays 7 or 8 (in one case 9); inner bracts of involucre with subscarious and slightly reddish-brown tips.

(flammula var.)

No. 1167. *Ranunculus intermedius* Hook.
Abbott's Lagoon.

Point Reyes Penins.

- *Frankenia grandifolia* - flowers pink; corolla $3\frac{1}{2}$ lines broad. - Abbott's Lagoon.

- ✓ No. 1168. *Barum Kelloggii* Gray.
Roots a cluster of fusiform tubers, tuber-like in shape but with very hard shell-like exteriors. Calyx-teeth very prominent.
Near Abbott's Lag.

- ✓ No. 1169. ^{= *Horkelia*} *Potentilla californica* Greene & S.
Petals white, oblong, truncate, crenulate, 3 lines long.
Bractlets with a tooth on each side near apex.
Stamens 10; in 2 rows, upper row with more obviously dilated filaments. See p. 14.

Sept. 15, 1900

- No. 1170. *Carex obnupta* Bailey
Det. K.K. M.
Abbott's Lagoon.

- *Solidago spathulata*, rocky crest of hill, G. Farm. Rays 5 to 8, 1 line long.

- No. 1171. *Grindelia*
Pappus - bristles 2 + 3; 2 mostly toward center apparently and 3 towards ray. - Dry hills, G. Farm.

- det. OK No. 1172. *Troximon apargioides*? Leaves very variable as to cutting and dentation. - Towards Point Reyes P.O.

Point Reyes Penins.

[No. 1169, l.c. Bractlets entire or toothed; to be found not only in the same inflorescence but even on one calyx. See p. 12.]

No. 1173. *Hamizonia*
Russell's Cream Factory
Flowers color of egg yolk.

No. 1174. *Sidalcea calycosa*.
Marsh, Russell's Cream Factory.
Peduncles and petioles
from a horizontal branching
and running rootstock-
like stem. A few flowers.
Good fruits. Very much
eaten of by cattle. Positively
perennial.

Sept. 16, 1900.

Polygonum Paronychia -
flowers white with a green
midvein which is toothed
or pinnate. This green
midvein and its teeth occupy
the centre and do not extend
out to the margin. Stamens
8, 5 with slender filaments
adnate by about $\frac{1}{3}$ their
length to perianth base, 3
with dilated filaments inserted
on very base of perianth and
therefore an inner circle, the
set of 5 being an outer
circle. - Road to Point Reyes
Light.

There is a very fine *Jorrea*^{californica}
between Camp Taylor and
Localoma standing by the

Point Reyes Penins.

Railroad track, with a sign
that may be easily read
from the passing car
window: Union Californi-
cum. Nutmeg Tree.

No. 1175. *Guaphalium*
Sand-dunes on ocean side,
opposite Russell's Cream
Factory.

No. 1176. *Eriogonum*
latifolium with preceding

(*Vaccinium ovatum* - berries
yet black, 2 lines long,
- Inverness.)

Sept. 16, 1900

No. 1177. *Madia gracilis* (Smith) Keck
Perhaps *M. anomala*. Rays 5,
1 1/4 lines long; disk fl. 8. Inner
bracts completely united into
toothed cup. Color of rays = pale
yellow.

Armeria vulgaris. Sea Pink.
Petals distinct, pink, with
3 nerves (deeper pink). Calyx
synsepalous.

Sarmentosa Presl var. *californica* C. & R.

No. 1178. *Centa Oenanthe*
See p. 20 | Stems and leaves producing
vegetative buds on long
slender shoots which
trail through the bushes,
the roots being in wet ground
below. Near Blacksmith Shop.

Point Reyes Penins.

The hills of the Peninsula do not look quite as bare viewed from the west as do those on the east side of Tomales Bay seen from Inverness. The tops of the former have some show of Bishop Pine on their tops as well as some brush in the canons which is always found on the west side of a range in this part of California near the coast. Away to the northwest I can see that the hills facing the ocean (above Tomales Bay) are bare and

Sept. 16, 1900

brown oceanward, but their tops have sharply defined crowns or tufts of trees—doubtless redwood.

Bishop Pine is not by any means on the decrease on the Peninsula. Apparently it does not extend far out towards Tomales Point, but between the summit of the Point Reyes wagon road and Inverness there are young forests galore. These young trees are of nearly one generation, 15 or 20 ft. h. and growing very densely and forming a very even and a very pure forest. The forest seems to be

Point Reyes Penins.

extending its area somewhat
or perhaps recovering
territory once occupied.
In the pasture on the
east side ^{top of} of the county
road (at the summit)
seedling trees are taking
the ground very freely.

No. 1178 l.c. ^{p. 16 ante.} These bulblets
are very solid; doubtless
the stems die in decay
and the bulblets fall to
the ground to be carried
along to new ground by
winter rains.

— ^{shallon} *Gaultheria* berries, deep
blue black.

Sept. 16, 1900

No. 1179. Bishop Pine - Inverness

No. 1180. ^{californica May.} *Cornus pubescens*
Inverness. Tall slender
straggling

No. 1181. Hums - Inverness

No. 1182. Thimble Berry

No. 1183. Red-berried Elder
↑ *Sambucus callicarpa* Greene

No. 1184. Tan Bark Oak.

Inverness, as
the two preceding.
Sprouts ^{up} from the old trunk
when cut off, even if square
with the ground.

Inverness.

Corylus rostrata var. *californica*
 I do not find any hazel-
 nuts with good kernels.
 Perhaps the squirrels have
 taken all the good ones!

Valley Oak - none of it on
 Point, nor about Olema (?).
 Nor Santa Cruz (?); nor
 S.F. Peninsula (?). Is it
 not a law of its distribution
 that it is only in Coast
 Range Valley and
 never in valleys facing
 or lying next to the sea?
 If so this will explain
 its absence from the valley
 of S.F. Bay (much remarked
 to Haywards and Niles (!))

Sept. 18, 1900

Weather most delightful -
 nice warm sunshine and yet
 the temperature is not high -
 deliciously lazy weather -
 proving once again to my
 satisfaction that the month
 of September in the
 country, is one of the
 most satisfying in our
 Californian calendar.

Mr. Davy tells me that
Eryngium amatum flour-
 ishes hundreds of acres very
 closely and is quite a
 pest "on the Point"

No. 1185. *Corylus* ^{*cornuta* var. *californica*} ~~*rostrata*~~ nuts.
 No. 1186. Olema. Point Reyes.
 Sept. 16. Russell's Cream Factory

Berkeley
2

- ✓ V. Chesnut writes me that
Pinchot & Towner were poisoned
on San Gabriel Mt. by *Ptiloxia*
paniculata, aka Poison Oak. See
letter in file.
-

- ✓ No. 1187. *Astragalus pycnostachys*.
Point Reyes School. Sept. 16
Dead ripe fruits.

- ✓ No. 1188. *Armeria vulgaris* Willd.
Point Reyes. Sept. 16.

- No. 1189. *Pimpinella apiodora*.
Point Reyes School. low
bushy hillside. Sept. 15.

Sept. 20, 1900.

Mrs. C. T. Blake who has just
returned "from the East" tells
me of visiting in the Ojai
Valley with her daughter
Mrs. Thacher. The last three
years have been dry, particularly
the last two. It is said that
never before were such dry
years known. In spite of im-
perfect records this statement
is borne out by the fact
that many of the finest
and oldest oaks in the
Ojai died in the summer
of 1900 (or possibly 1899). These
oaks, *Quercus lobata*, were
large trees. From Mrs. Blake's
description of the size I should
say they were 350 years old.

Berkeley

Anderson, the geologist, came in today and surprised me greatly by showing an excellent fruiting branch of *cupress Macnabiana*, which he had discovered near Shasta. It is a rare species of Lake County, first collected near Mt. Shasta in 1854 but the exact locality not known and not since recollected. Mr. Anderson obtained his specimen at Whiskeytown. Whiskeytown is an abandoned mining camp in Shasta Co., a dozen miles or more in a straight line from Redding, and perhaps half-a-dozen

Sept. 25, 1900

miles in a straight line from the Sacramento River. It is not far from the old-time town of Shasta which has something of historical interest. A few miles east of Whiskeytown, along the road, the attention of the traveler was strongly attracted by trees of this species. There were perhaps 20 or 25 met with in that section, scattered along the road for $1\frac{1}{4}$ a mile. The country is a flat country, more or less brush-covered. The cypresses were confined to the dry flats. The highest trees were 15 ft. h.; they were very slender. Mr. Anderson emphasized

Berkeley

this point, so the slenderness must have impressed him. The trunks were bare of limbs for $3\frac{3}{4}$ ft. from the ground. I did not ask the explorer concerning the kind of brush on this brush-covered flat country.

F. M. Anderson found a spruce near ^{or on} Preston Peak which he believes to be different from our described species. Brewer's Spruce is abundant on Preston Peak. He also found near the coast a species of pine which he firmly believes to be new and not a

Sept. 25, 1900.

form of *Pinus contorta* which he has observed on the sea coast, in the swamps, and in the high mountains. He sent specimens to his old friend Applegate (P.O. Klamath Falls); or at least he sent to him specimens of the unknown spruce.

Anderson saw redwood piling in the salt water at Gureka, (Humboldt Bay) which was sprouting. Green sprouts 2 ft. long. The piling moreover was small and down. The redwood is used there for wharf piles. Anderson regards it as an intolerable shame that the lumbermen

Berkeley

are destroying all the redwood. He glowingly spoke of the forests as the finest forests on earth; the greatest trees in California, there being trees 40 ft. in diameter! Something should be done to preserve some of these redwoods - for in this Humboldt region are the finest ones.

I propose to go next into that northern country. F. M. Anderson regards Etna or Fort Jones as good places to start from; mules can be had at either of

Sept. 25, 1900.

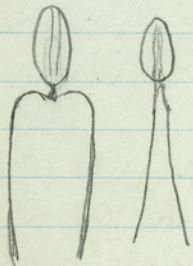
these places, especially at the former place.

Anderson spoke also of the fine "Trinity Cluster" of mountains which he calls the most picturesque mountain in the Coast Ranges, the alps of the Coast Ranges, granite peaks rising high out of the surrounding country. This cluster includes Thompson's Peak, Weaver Baldy etc. and Trinity Mt. proper, at least of the Mining Bureau map.

Address:

F. M. Anderson
Yreka,
California.

Fritelia lugens Greene, Type!
in Cal. Acad. Sci.



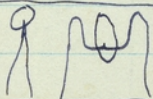
Filaments alternately so; drawing rough but will give the idea.
Vaca Mts. Greene.

[Notes made Nov. 1900]



Hookera ixioideis

Lehema Co, Apr. 29, 1899.
Manzanita Flat. Jepson



Filaments of
Halls & Chandler's no. 420.

Mr. Anson Blake tells me that cultivated Field Oaks* (young specimens) which were watered during the last summer made two growths, a spring growth and a late summer growth -

October, 1900.

* *Quercus agrifolia* Née.

California Acad. Sci.

Nov. 3, 1900

Notes at the Herbarium

Senecio Greenei Gray - "Woods near the Geysers, E.H. Greene, June 18, 1874." - Lowest leaves typically round or at least broadly oblong, crenate or toothed; cauline leaves ovate or oblong, ^{some} disposed to be entire at apex, below the middle with coarse or salient teeth. Leaves including petiole 5 in. long or less. Blades $1\frac{1}{2}$ in. to $\frac{1}{2}$ in. Petioles larger than blades mostly. Cauline leaves (except lowest) sessile or with wing-margined and toothed bases

Rough sketch of base of cauline leaf of one type.

Cal. Acad. Sci. Jb.

Senecio Greenei - Cont. Heads large, 6 or 7 lines high; rays 6 or 7 lines long, few (7 to 9). The above description is from the type and from Mrs. Brandegee. Snow Mt. [Lake Co.] plant. coll. June 22. The sketch is from the Snow Mt. plants. These plants have 7^{or 8} rays uniformly - the type may have more.

Umbellularia Californica =
Pepperwood, not known by
any other name at Bloom-
dale - Satchell, Feb. 1901

Slate Creek. Rick Hermann.
1900 notes

Digger Pine - below 3 or 4000,
always on Serpentine

Sugar Pine - above 3 or 4000
showed no preference between
soil and serpentine

Cedar, white - always near water -
so-called on account of its
wood. Foliage flat sprays.

Cedar, Red - among the hills, up
to 6000. Associated with
Red Fir and Yellow Pine.

Fir, Red - cones 1 or 2 in long

White Fir = Piss Fir - wood ng.
Branches forming tiers,
running into one another,
cork-screw fashion

Silver Pine, mostly in bottoms
of canons, in areas close to
water. General appearance
suggests Digger Pine but

Slate Creek.

only one main trunk and
comes very much smaller.
No good for lumber. Used
for fish poles in spearing
salmon. Biggest one 6 in.
diameter.

Yellow Pine - predominating
species.

More Silver Pine in Slate Creek.
Dog Creek than in

Ramrods made from some
shrub which on being heated
split and coiled 2 or 3 times

Sugar Pines close up in water.

Blatonis - on R.R.

Lamome Lumber Co.
1st. stat. above Delta.

Tree-Book Notes.

Oaks - White Oaks - sweet nuts.
Black Oaks - bitter nuts - does this
hold true with the Californian
species. - Cf. Gard. & For. IV.1. - very
closely, yes.

Get seeds of Bishop Pine - as old as
possible - and see if they will
germinate - say from 35 or 40 yr. old cones.

Cal. Acad. Sci. Herb.

Nov. 22, 1900.

Lagophylla congesta Greene,
"Type, Samalpais, July, '83, K
Curran". "Lake Co, Greene, '83"
"Eppersmo, Lake Co, Brandegee,
32 in. high, much branched."

Ibologonia filipes Greene. Napa
valley (?) 1884, Greene, 25 in. high,
stems very slender, almost
filiform branches and rather
thickly clothed with oblong
leaves 2 or 3 lines long, entire.
- Calaveras Co, 1878, Harford,
det. Greene! leaves linear-
lanceolate, hairy like *congesta*
but not so much so, a small
tooth or so on the leaves,
the largest leaf 3 in. long
but the lowest young stems

Cal. Acad. Sci. Herb.

simple up to the small but
rather broad corymbose inf.
Plant 32 in. high!

- Warm Springs, Sonoma Co, det A.E.
- Mt. Samalpais, July 17, '98, A.E. det A.E.
- " " (Polo) June 28, '96, A.E. " " "

The filiform peduncles not always naked.
Rootstock striking!

- New York Ravine, El Dorado Co, Brandegee
- Howell Mountain, Aug, '89, K.B.

The lower leaves gone, slender branches
with the small leaves.

- Guadalupe Mt. Mariposa Co, July 7, '89,
coll. C. G. D. det C. G. D.

- San Antonio Creek, N. Calif., this
accentuates characteristic habit,
lower portion (stem & branches)
with the long (1 to 3 in.) leaves,
upper portion with numerous filiform
stem leaves and small leaves!

Cal. Acad. Sci. Herb.

Nov. 22, 1900

Lagophylla filipes Gray. ^{Agua}
Fria Cañon, Mariposa Co. June 16,
1895. Lower leaves linear or
somewhat lanceolate at tip, 4 in.
long or less, some of them
with 1 to 3 small teeth on each
side! Plant broken off, 33 in.
in length!

All plants examined either
glabrate in age or showing a
tendency thereto.

— Sanalpais, Brandegee,
July 12, 1891, good root stock.

~~*Forsteria*~~ ^{*umbellulana*} *California* - at Fairfax,
Pasadena Grounds. About 3½ ft.
from ground, 16¼ ft in. circum.
Branched at 4 or 5 ft. - W.A.
Satchell, February, 1901.

Queries

Atriplex cordulata Jones. What is
it? Cf. Heller's Cal. N. Am. Pl. 1852.

Brandegee, E. About 1901-2
R. Hopping took Mrs. B. up
to Alta Peak from Round
Mdw and left her at her request
with a little food supply, etc.
to botanize. He returned far
at a named date. This is
quite a thing for a
woman to stay alone in
the wilderness - In any event
it is much to Mrs. B's
credit that she never brags
or even tells of these things.
Quite in contrast to
Miss Eastwood.

Iron Journ. Bot. 24, 51.

Hookera cornaria Salisb. Parad.
t. 98 (1808) = *Brodiaea grandiflora* Sm. in Linn Trans. X. 2 (1811)

H. pulchella Salisb. l.c. t. 117 =
B. congesta Sm. l.c. p 3.

H. multiflora = *B. multiflora*
Benth. Pl. Hartw. 339.

(James Britten)

Mr. P. E. Goddard, a graduate student, tells me that it is his remembrance that *Arbutus Menziesii* flowers both in the autumn and spring - he ~~does~~ will not say for certain but it is a matter to be looked up in the field.

= Jan. 1901.

Berkeley, Nov. 26, 1900.

Mrs. K. Brandegee visited us today. She is looking over and naming up our *Borragos*. Every now in a while she pays a little "compliment" to E. L. Greene. She stopped last night at the Lemmon's. She told me - as a great confidence - that Lemmon had offered to do the *Coniferae* for her Flora! It was a sincere offer and Mrs. B. was much embarrassed or pretended to be. She had a number of Lemmon's little publications of recent date, his *Handbook of Coniferae*, etc. ^{edited} and said that she should add them to her collection of *California Facetiae*! Had her to lunch at the Myers.

Cal. Acad. Sci. Hb.

Dec. 27, 1900

Gymnosperms terebinthinus T. & G.

The following are so labeled in Hb. and are apparently all correct, but few are in fruit:

Mt. Shasta, Eastwood, Aug. 11, '93

"Mt. Adams, W.J." Henderson, no. 380, 1883

Argus Mts, Coville, no. 739

Panamint Mts. Coville, no. 545.

Castle Peak, 12000 ft, S.N. Mts,

Summit Camp, Kellogg,
Mineral King, Coville, no. 1392.

Sequoia Mills, Brandegee, July 20, '92

Bullfrog Lake, Eastwood, July, '99

Bubb's Creek, Eastwood, July, '99.

Bonium maculatum L.

Lake Merced, San Francisco, A.E.

Mokelumne Hill, F.E. Blaisdell, M.D.
Apr. '95.

Mono Gold, June '84. Brandegee

San Luis Obispo, R.A. Plaskett, '89

San Simeon, Santa Lucia Mts. R.A. Plaskett.

Cal. Acad. Sci. Hb.

Dec. 27, 1900.

Brantzia lineata Nutt

Antioch, June 8, 1892, River Banks
[K.B.]

Selinum pallidum Barg.

Lake Co., Brandegee, July '84 = *Angelica*
lomentosa Slater Jepson!

Scandix Pecten-veneris L.

Near St. Helena, along R.R., May 6, 1900.

Santa Rosa, Apr. 26, '93, A.E. [A.E.]

Caucalis microcarpa H & A

Santa Lucia Mts, A.E. '97.

Mokelumne Hill, Dr. F.E. Blaisdell,
Apr. 1900

Bodega Point, A.E. '99

Alcalde, Fresno Co. A.E. '93

New Idria, A.E. 1893

Caucalis nodosa Thunb.

Lake Sequimas, Marin Co, A.E. '92

Folsom, Apr. '83, K.B.

Pacific Valley, S. Monterey Co, A.E. '93

Mokelumne Hill, Dr. Blaisdell, '94

S. San Francisco, Brandegee '92

Calistoga, E.L. Greene. 1881

Cal. Acad. Sci. Herb.

Dec. 27, 1900

Caucalis microcarpa Huds.

Butte Co., H.E. Brown.

Kaweah, Eastwood, May '94

Stiles, Colusa Co., K.B. Apr. '89.

Velaea Hartwegii

Mt. Diablo, A.E. '99

Folsom, K.B. May, '83

Oakland Hills, Kellogg, June 70

Squima Mills, A.E. May, 94

Amador Co. Hansen.

San Luis Obispo Co. Jared.

Velaea Kelloggii C.R.

Fort Tejon, Coville, #1157.

Monterey Co (Santa Lucia Mts) A.E.

Velaea vestita C.R.

Whitney Mts. Coville, 1891

no. 1628

Cal. Acad. Sci. Herb.

Bowlesia lobata R.R.

Between Mokelumne Hill and

San Andreas, Calaveras Co.,

Calif. Dr. F.E. Blaisdell, Apr. 1900

Santa Lucia Mts. Monterey Co., A.E.

Pobrero Hills, S.F. Kellogg, Mar. 25

San Leandro CR, Alameda Co, Apr. 12

(1885)
1870, "Fls white. Shady
bank" - Kellogg.Apiastrum angustifolium Nutt

Milpitas Ranch, Santa Lucia Mts.

A.E. '97

Bet. Valley Springs and Mokelumne

Hill, Dr. F.E. Blaisdell, Apr. '00

Mt. Diablo, Rattan, June 14, '86

Oakland Hills, Apr. [K.B.]

Pobrero, S.F. Apr. 9, 92 [K.B.]

Jamaalpais, June 14, 92 [K.B.]

Lake Co. [K.B.]

Folsom. May, '83. K.B.

Cal. Acad. Sci.

Dec. 27, 1900

Apiastrum angustifoliumSan Gregorio, ^{E.S.} May 14, 70. Dr.

Kellogg. broad-leaved form.

Alcalde, A.E. May 9, '93

Heracleum lanatum Michx.

Bodega Pt. A.E. '99

Olenu, Marin Co.

Pimpinella apiodora GrayBodega Point, Sonoma Co. D.E.
[4. '99]Sanicula bipinnata H & A

Sequoia Mills, Fresno Co., A.E.

Caliente, K.B. Apr. 90 [July 20, '92]

Kaweah, Inyo Co., A.E. 4-95.

Martinez, A.E. May, '99

Santa Lucia Mts. R.A. Plaskett.

Amador Co., Hansen

Cal. Acad. Sci.

Dec. 27, 1900.

Sanicula arctopoides H & A.

Tiburon, A.E. Apr. '94.

Mendocino, H.E. Brown, '98

Bodega Pt. Sonoma Co., A.E. '99

Monterey, A.E. 1900

Samolus Valerandi Americanus H & A.

San Bernardino, S.B. Parish

Antioch, K.B. June 8, '92

Trientalis latifolia Hook.

Monterey Co., R.A. Plaskett.

Crystal Springs, Kellogg & Brannan.

Santa Cruz Mts. M.K. Curran.

Mrs. R.M. Austin, Cascades. Oregon

Mokelumne Hill, Dr. Blaisdell

Butte Co., Mrs. Bruce. [1904]

Mendocino, H.E. Brown.

Cal. Acad. Sci.

Dec 27, 1900

Microcala quadrangularis Griseb.

Mt. Jamaepais, 4-90, K.B.

San Rafael, 4-76

Altavilla, Sonoma Co. A.E. 4-00

Apocynum cannabinum L.

Mokelumne River, Hansen

Yosemite Valley, ^{2000 ft. alt} Mrs. Dodd.

Little Chico, Mrs. Bruce

Clarkia concinna J. & M.

Windson, Sonoma Co. Mrs. Swett.

Whiah, Purdy.

Humboldt Co. acc. Blankinship

Napa, A.W. Robinson.

Port Costa, Brandegee.

Santa Cruz Mts, Kellogg.

Yosemite, coll & det K.B.

"Child of Eden" - Kellogg!!

Cal. Acad. Sci.

Dec. 27, 1900

Clarkia Breweri Greene.

Piest Valley, A.E. May 3, '93

Santa Clara, Dr. Saxe (type of
Clarkia Saxeana Greene.)Hernandez, San Benito Co, Mrs.
Jennie Byles.

Berkeley, Dec. 28, 1900

Dr. C. F. Newcombe, Victoria, B.C.

came into Herb. today to see *Nicotiana attenuata*. Is interested in Indian lore. Says Monterey Indians and Columbia River Indians not only smoked a wild tobacco but ground the dried leaves into a powder and, after mixing with a quicklime made from abalone shells - chewed the same! This seems like a somewhat improbable story but Dr. Newcombe impressed me as a careful serious conservative type of Englishman.

Berkeley, Jan. 9, 1901

- Dr. A.M. Carpenter tells me that *Pinus monticola* is called Bastard Sugar Pine in Nevada Co. He also offers "Willow Pine" as an alternative name for Digger Pine. All of Carpenter's Collection for the University came from the Bowman Dam Group of Lakes, north and a little to the east of Emigrant Gap.*

I related a story of Green's peculiarity: Carpenter laughed and exclaimed: "Oh! Green was most delightfully irregular!"

(See "Notebook on Botany of Cal. etc.", 28.)

* This region is in Nevada Co., but some of Carpenter's labels read: "Placer Co. Aug.-Oct. 1892," as on *Orthocarpus lacerus* (H.C. Herb.).

Mt. Tamalpais, Mar. 9, 1901.

- ✓ No. 1190 - ~~(discarded)~~ Willow buds of Buckeye, scales.
 ✓ No. 1191 - *Sanicula laciniata*.
 H. & A. Ross Valley trail, about 600 ft.

Bigelovia arborescens - 8 ft. high
 - near Cascades. Plentiful to top of Mt.

Yerba Santa = "Bird Peach", on account of the foliage - Mr. Evans.

- ✓ No. 1192. *Rhododendron occidentale* Gray
Monymus occid.
 Branching umbellate. Willow buds clustered at ends of branches, giving rise to a umbel of shoots the next season, the shoots not very unequal - Cascades. Leaves beautifully involute.

main Co.
Mt. Jamaica, Mar. 9, 1901.

Pedicularis densiflora - Galea
much flattened; lower lip of
corolla with white-edged
teeth; corolla crimson.

Abundant shrubs in upper
zone - *Pickeringia*^{montana}; *Ceanothus*
sorediatus; *Umbellularia* (!);
Dendromecon; *Arctostaphylos*
glandulosa; some *Chrysopsis*;
Begonia arborescens.

Acer macrophyllum Ph.

- No. 1192 A. Maple. Rose Valley.
No. 1192 B. Mill Valley trail. *Ceanothus**
No. 1192 C. Penced anem. Mill
Valley trail.

P. macrocarpum Nutt. No!
= *P. dasycarpum* Fr. var.
medium Jepson.

* *C. foliosus* Parry.

Vacaville, Mar. 20, 1901.

The slopes are now in their
darkest green. Long yellow
streamers bedeck the hills
here and there - so abundant
and so continuous are the
patches of *Orthocarpus erianthus*.

- Buttercup, *R. californicus*, is not
abundant here. One may go a
long ways without seeing a bit
of it. The patches here and there
are in moist soil.

[Cont. 1198 a. *Mimulus guttatus* DC.
Det. A. L. G.]

Vacaville, Mar. 20, 1901

No. 1193. *Allocarya stipitata* Greene
Large fls. Open throat to corolla:-
Processes scarcely any. Throat
yellow, changing to white com-
pletely before falling of corolla.
Calyx lobes rather narrow, the
corolla-tube visible between
them.

No. 1194. *Allocarya* ^{*cusickii*} ~~*californica*~~ Greene
Small fls, less than $\frac{1}{4}$ the size.
Tube closed by processes, no obvious
throat. Color of tube as in No. 1193.
Calyx lobes somewhat larger
relatively and concealing tube
from view. Lowest leaves opposite
and connate-sheathing, as also
in No. 1193.

Salmon Co

Vacaville, Mar 20, 1901

No. 1195. *Callitriche marginata* Torr.

Beds of vernal pools, almost destitute
of other vegetation. Very closely tight
matting the ground. "Bubbles" found
in a good many upper axils. Fruit
turned downward into the ground on
a peduncle. Carpels 2, face to face,
flattened side wise so that the fruit
is nearly round. Each carpel has a
channel on the back margined
by a thin edge. See ahead Sp. (p. 63).

No. 1195a. *Gilia cotulaefolia* - young.

No. 1196. *Mulla maritima* ^{var. *maritima*} ~~*maritima*~~ ^{var. *maritima*} ~~*maritima*~~

Inner perianth segments narrowly
elliptic; outer narrower, ovate, tapering to apex. Odor faint, but
sweet. Taste none. - *canus* Benth.

No. 1196a. *Ranunculus* ~~*maritima*~~ ^{*maritima*} ~~*maritima*~~
first station north of Vacaville.
Note the achenes.

Vacaville, Mar. 20, 1901.

No. 1197. *Eryngium Vaseyi* C. & R.
Plants growing as usual in
vernal pools. In the middle
of the pools were plants with
fistulose petioles only. These
leaves were, in shallower water,
being succeeded by leaves
showing more or less blade
at top of the petiole; or
in "pools" with no water
the plants showed now
only the familiar foliage
of *Eryngium Vaseyi*. ^{basal}
I believe it is safe to say
that the "blade" is always
a lacinate-pinnatifid or
toothed blade, never a broad
semi-entire terminal blade
as in the specimens of *E.*
californicum from Yountville.

Vacaville, Mar. 20, 1901.

- *Rumex crispus*, *Matricaria discoidea*,
Tillaea minima, *Gilia*
tricolor (protogynous)

No. 1198. *Nemophila insignis*.

Fruits on reflexed peduncles.

No. 1198a. *Mimulus Laugedorfii* var. ^{red}
^{See p. 55}

No. 1199. *Eschscholtzia lobbia* Greene.
^{Violet sta.}

No. 1199a. *Baeria gracilis* - Violet Station

No. 1200. *Sanicula bipinnatifida* Dougl.
^{Violet sta.}

No. 1200a. *Thysanocarpus radians* Wieg.
^{with purple or white.}

No. 1201. *Eschscholtzia* ^{rhombipetal} ^{californica}

No. 1201a. " ^{Both} ^{Chm.}
near Violet Station = 1199 also.

No. 1202. *Quercus lobata* Née.

Specimens from near the bridge over
the Alamo at Juntas. There are
several fine trees below the bridge
on the hills above. I went as far
as the orchard goes and there

Vacaville, Mar. 21. 1901.

were about 6 or 8, one of them being a particularly fine tree. Below this point, towards the Mill Residence and below there are few oaks. Above the Bridge, between Hyatt's and the William's place, there is a large oak about every 100 or 200 yards for a distance of $\frac{1}{2}$ a mile. In the Hawkins field south of the R.R. track there are now eight oaks, average specimens. See next page.

- In this same field there is a great abundance of Man Root - especially on the high sandy places in the field.
- *Eschscholtzia rhombifolia* is also to be found abundantly on the western side of the field

Vacaville, Mar. 21, 1901.

at the bases of the low hills, part of which forms the cemetery.

No. 1203. Man Root. Hawkins Field - see preceding page.

~~Eschscholtzia~~ ^{maral} *Eschscholtzia* *lobacea* (Naud.) Greene

- *Quercus lobata*; stamens 10, 10, 11, 11 - See No. 1202.

- *Trifolium tridentatum* Lindl. - one of the most abundant and conspicuous plants.

(*Q. lobata*).
- Oak trees east of Vacaville in Hawkins field, etc: Some trees in flower and young foliage, others not even starting. No difference in surroundings or soil. Dif. in constitution.

- Al. Steiger who uses Rocky Peak as a lime quarry has quite changed the appearance of this landmark by cutting away the oaks and laurel bushes

Vacaville, Mar. 22, 1901

- No. 1204. *Tillaea* ^{*aquatica* L.} ~~*Hammondi* Fr.~~
 Stems branching from the base,
 decumbent, rooting at the joints, so
 that it is very difficult to get a
 plant away from the ground whole,
 the fleshy stems breaking readily.
 Leaves linear-oblong, 2 lines long
 at most, acutish. Stems $1\frac{1}{2}$ in.
 long or less. Petals oblong, somewhat
 concave or boat-shaped, white,
 twice as long as the triangular-
 ovate sepals. Flowers almost
 sessile; nevertheless the pedicel
 though but $\frac{1}{4}$ line long is obvious.
 The most mature fruit, however,
 shows no indication of the
 "pedicels at length equalling or
 exceeding the leaves". The
 flowers, I should add, have

Vacaville, Mar. 22, 1901

a very very faint pinkish tinge -
 but scarcely obvious or worth
 noting. Carpels not pointed at
 apex, obtuse. - Wet beds of
 vernal pools, Violet, first station
 north of Vacaville, = *T. aquatica* L!

- No. 1205. *Juncus* ^{*uncialis* Greene.} ~~*triformis* Engelm.~~
 Det. F.V.B.
 var. *uniflorus* Engelm.
 Perianth of 6 segments. Stamens 3.
 Wet beds of vernal pools; Violet, first
 station north of Vacaville.
 No. 1205a. *Sagina* ^{*occidentalis* Wats.} Violet Station.
 [No. 1195. *Callitriche*. Pistillate fls.
 Commonly 2 at each node, usually
 perhaps always with 1 staminate fl.
 Uppermost ^{node} with a single
 staminate flower. Anthers and
 pistils peduncled. My material
 rather past flowering. See p. 57.]

Vacaville, Mar. 22, 1901

No. 1206. *Orthocarpus attenuatus* ^{Benth.}
Spike slender, soon elongated. Teeth
of lower lip slender, the middle
one decidedly the longest. Galesa
not hairy or scarcely ^{so}. Flowers
and bract tips whitish, the corolla
with purple dots or markings, but
very similar to No. 1207. Sacs
small. - Violet sta.

Orthocarpus attenuatus Gray.

No. 1207. Spike short and denser,
slowly elongating. Teeth of lower
lip, nearly as long as galesa, as
in preceding, all equal, slender.
Bracts and teeth crimson. Corolla
yellowish, with purple dots and
markings. Galesa with crimson
hairs. - Violet sta.

Berkeley, Apr. 25, 1901.

Yesterday was the last day of
lectures and I feel a great
sense of freedom. The weather
is fine, elegant in fact, and
invites to the mountains. I
feel nowhere so much at
home as lying in camp at
the edge of the forest, with
the stars so bright that they
look like Christmas candles in
the trees. And then the hums
and one strange sounds of the
forest; some wried, some almost
bear-awakening at first, but
in time how familiar and
sweet they become. But what
is there like running water,
like the sound of running
water? It makes music in

Berkeley, Apr. 25, 1901

one's soul. One camp is by a roaring torrent, another by a streamlet so small that one has to scoop up the water - but there is always the sound night and day. It is ever an association of the mountain camp. I have never felt so great a sense of peace and content as in camp by a roaring cataract or by Vernal Fall.

The mountains cultivate decision; they cultivate the habit of abiding by a decision once made; they cultivate self-reliance.

How much time one wastes

Berkeley, Apr. 25, 1901.

in cities; how little it amounts to - the seeking of pleasure. But one not only gets pleasure in the mountains but he gets other things through he may not realize it until afterward. Each year I get my stock of spirituality - that is not just the best expression - from new, from the mountains. How the mountains repress one, how they crush out speech. One never cares to talk about the things he sees, or attempt to describe them. He can only feel them.

Berkeley, Apr. 26, 1901.

Prof. Satchell has just brought from Santa Maria some genuine California Walnut fruits. Although they are described in the books as being small I was amazed at the small size of them. He had them from Mrs. Ida M. Blochman who had them, I think from a Mr. Adams of that place who has a decided interest in the tree and takes pride in his cultivated specimens.

Berkeley, Apr. 30, 1901.

I called last night on Mr. Kellogg who with his daughter Miss Minnie Kellogg are now living in Berkeley on Bancroft way. Mr. Kellogg is a New Yorker who came to California in early days and has seen a great deal of life and of men in the west. He has been in the Custom House where he did not neglect his opportunities for acquiring information and conversing with travelers. He has met so many noted public men that he is now a ~~note~~ very entertaining talker. He has observed in every way. For instance he had many interesting things to offer con-

Berkeley, Apr. 30, 1901.

cerning the forests of California and the size of the trees. He commented upon the coming extinction of the Tan Oak. I explained to him the necessary differences in treatment between Tan Oak and Cork Oak. He said that he had read in a book of travel that, in one of the provinces on the eastern shore of the Adriatic, oak wood was boiled to extract the tannin. So he queried why the tan oak might not ^{be} utilized in the same way. But the Tan Oak wood which is now left to rot probably contains little tannin. The bark, it is asserted, produces the finest and most durable sole leather in the world by the tannin which it contains.

[Utiah, May 1, 1901.
W.A. Satchell.]

Plants by Satchell:

Flouckea . . . Petals white
cuneate-oblong, deeply emarginate
at apex.



From the base of the petal extend out two V-shaped lines of hairs perpendicular to the surface of the petal, running very closely to the edge at the ends of the V, more closely than represented in the rude sketch. In other words the lines start at the sides and converge to the base.

- *Astragalus pomouensis* Jones. No. 1258
Cont from p. 78. So cited in Fl. Cal.

Berkeley. May 2, 1901.

A correspondent* in Napa Valley
is sending me some plants &
also sends the following fine old
riddle.

"What is it man prefers to life?
Fears more than death or deathly strife?
What his contented desires?
The poor man has, - the rich requires?
The miser spends, - the spendthrift saves?
And all men carry to their graves?"

The answer was enclosed in an
envelope. The envelope contained
Nothing!

* Mrs. Clara Adela Hunt, relative of
Alphonse Wood. See Madrono, July,
1933.

San Francisco, May 9, 1901.

Saw today in florist's shop on
Sutter st.:

Smilacina amplexicaulis, in fl.

Xerophyllum tenax, in fl.

Quercus californica, foliage.

Vaccinium ovatum, foliage.

- all for sale.

Miss Lemmon of the Bot. 4.
class, says Cottonwood, P. Fremontii,
keeps its leaves all winter in Ariz.

Left Berkeley May 15, being Com-
mencement Day, the day President Mc-
Kinley didn't come to the University, on
the Owl for Los Angeles and Riverside,
from which latter place Mr. Hall, who
graduates this year ^{at Berkeley,} will meet me for
a trip to the San Jacinto Mts. and the desert.

Riverside, May 17, 1901

alt. = 873 ft.

- *Solanum douglasii* Donal. See
Lamarckia aurea Moench.
 No. 1208. Grass. Mesas east of
 Riverside on road to San Jacinto
 No. 1209. *Euphorbia albomarginata* F. & G.
 No. 1210. *Oenothera biortata* Nutt. Spot
 at base of petal.
 No. 1211. *Mimulus brevipes* Bth. strong
 fold in throat on lower lip.
 No. 1212. *Cryptantha intermedia* Greene.
 No. 1213. *Phacelia Whitlaira* Gray. =
P. minor Keck.
 No. 1214. *Ptiloria virgata*
 No. 1215. *Eulobus californicus* Nutt.
Oenothera leptocarpa Greene.
 No. 1216. *Scrophularia californica* Benth.
 var. *laciniata* Tupper.
 No. 1217. *Eroton californicus* Muell.
 No. 1218. *Antirrhinum nuttallianum*
 var. *effusum* Gray.
 No. 1219. *Oenothera micrantha* Hornem.
 var. *ignota* Tupper.
 No. 1220. *Malvastrum fasciculatum*
 Greene.
 No. 1221. *Delphinium parryi* G.
 No. 1222. *Cotyledon lanceolata*
 ssp. *lanceolata*
 B. & W. Fls. reddish brown with green-
 ish yellowish tips to petals. Flower
 not expanding, the orifice of

Riverside, May 17, 1901.

alt. = 873 ft.

the convolute petals small. Ridge
 on back of petals very strong and
 very sharply defined.

No. 1223. *Eriogonum fasciculatum*
 var. *poliferum*No. 1224. *Chenopodium murale*.

C. album also noted.

No. 1225. *Galium* *paniculata* GrayNo. 1226. *Hemizonia* *virgata* Gray. Very abundant.
 [Ray 8.]No. 1227. *Lolium* - annual. *L. strigosus*
 see p. 94 a. *greenei*No. 1228. *Calochortus splendens* Dougl.No. 1229. *Baeria* *angelensis* V. GrantNo. 1230. *Gilia* *multicaulis* Bth.
 = *Eriogonum saphirinum* ssp. *dasyanthum*No. 1231. *Gilia virgata* Steud.
 = *Gilia virgata* var. *dasyantha* J. G. R.No. 1232. *Altopappus Palmeri*
 = *Gutierrezia saopothra* thinks HallNo. 1233. *Nicotiana Bigelovii* acc. Hall
 Greene.No. 1234. *Mentzelia affinis* G.

Fls. yellow, 5 lines diameter.

No. 1235. *Viola pedunculata* T. & G.

Sitchell says Mrs. B. thinks this

diff. from our Northern Calif. fl.

Florida, May 18, 1901.
San Jacinto Valley.

- *Oenothera californica* - styles with a cup-like process at top in which the 4 long slender stigmas are set. It were better to say a platform-like or wheel-like process - from examination of further material. See no. 1249.
- *Eriodictyon lomen-tosum* - 7+ 8 ft high.
- *Rhus laurina* - densely foliated shrub 8 ft. high.
- Masses of flowering shrubs, bushes and plants: *Solan glaber*, etc and rising above the general level the slender inflorescence of *Salvia californica* (*Audubonia polystachya*).

Aderostoma fasciculatum forms a broad zone in San Jacinto River Canon below Pine Belt.

San Jacinto Lake, May 17.
San Jacinto Valley. 1500 ft. 1901.

- ✓ No. 1236. *Pentstemon antirrhinoides* Bth. Woody shrub 4 to 6 ft. h. Fls. very striking. Corolla yellow; throat very open. Lower lip turned downward, 3 equal deeply parted lobes. Sterile stamens turned down to lower side, so that entering insect would brush his belly against the forest of erect hairs. Fertile stamens approximate in pairs under upper lip; style curved at tip and protruding from the very short cleft at summit of erect upper lip.

No. 1237. *Hemizonia* Hills near San Jacinto Lake. also near.

No. 1238. *Salvia californica* (Aud. poly.)
See p. 84a. *Salvia diandra* (Aud. poly.)
See p. 84a. *Salvia diandra* (Aud. poly.)

No. 1239. *Frankia grandifolia* var. *campestris*. San Jacinto Lake Bed.

No. 1240. *Atriplex*. annual sp. San Jacinto Lake Bed.

No. 1241. *Phacelia* Annual!

No. 1242. *Raphanus Raphanistrum*.
Roadside but near Farm.

San Jacinto, May 17, 1901
1600 ft.

- No. 1243. *Anemopsis* ^{californica} Note hairy
stems. Near San Jacinto Lake.
- No. 1244. *Spergularia*
lissa macrotheca. Near
San Jacinto.
- No. 1245. *Abronia villosa* ^{var. aurica} Near San J.
= *A. aurica* Abrams!
- No. 1246. *Ghaenactis*. San J. to S. Valley.
^{ambigua Gray.}
- No. 1247. *Sphaeralcea* ^{not fenderi Gray.} Fl. brick red.
- No. 1248. *Lupinus densiflorus* Bth.
^{var. lacteus}
Common on valley lands at
Florida. Fls. flesh-color or nearly
white. Plants 2 ft. high.
- No. 1249. *Oenothera californica* Wats.
See p. 76. Opens at evening for night
and remains open until next am.
- No. 1250. *Astragalus* ^{= *A. pomongensis* Jones} *protolanae*?
See p. 71. Fls. yellowish; common at
Florida. *A. douglasii* Gray var.
crystallica Jepson.
- No. 1251. *Oenothera dentata* ^{Bth.} Sandy soil
- No. 1252. *Salvia* ^{Bth.} *carduacea* ^{Bth.} *flustle*
Sage. The heads past fl. are very like

San Jacinto River, May 18.
c. 1800 ft. { Upper San Jacinto
Valley,

- little heads. The pair of stamens
are carried out on lower lip "on the
same principle" as in *S. Sonoriensis*.
- No. 1253. *Eucelia*. *shillida*, *E. actoni*
^{Elmer.}
- No. 1254. *Malacothrix californica*
= *heermannii*
- No. 1255. *Lolium tomentosum* Plant
about 5 ft. broad. <sup>Cited as *L. eriophorum*
Greene. (Benth.)</sup>
- No. 1256. *Antirrhinum Coulteriianum*
^{no. 1257. *Carex praegracilis* W. Booth. Det. K. M. M.}
- No. 1257a. *Eriodictyon tomentosum* Bth.
= *E. crassifolium* Bth.
Plants bluish-grayish, 8 ft. h.
- No. 1258. *Plum ovata* Wats.
- No. 1259. *Gilia pharmacoides* Bth.
= *Linanthus liniflorus* Greene.
- No. 1260. *Pentstemon* ^{Lobos Blue; tub.}
^{spectabilis Thurb.} purple-red; throat open; sterile
stamen glabrous.
- No. 1261. *Cirsium occidentale*
~~*carduacea*~~ See p. 84a. *mellifera*
- No. 1262. *Salvia* ~~*stachyoides*~~ ^{(Encypta) Bth.}
- No. 1263. *Ellisia* ^{(*chrysanthemifolia*) Bth.}
- No. 1264. *Hropappus linearifolius* Bth.

San Jacinto River, to
upper San Jacinto Valley, 2000 ft.

- No. 1265. *Clarkia modesta*
Godetia epilobioides Wats.
Flowers lavender-pink, ^{petals} dotted on
inner half.
- No. 1266. Asteroid.
- No. 1267. *Cercasus ilicifolia* - shrub
10 ft. high (*Cercasus ilicifolia* Walp.).
- No. 1268. *Eriophyllum multicaule*
Rays 5.
- No. 1269. *Adenostegia rigida* Greene.
- No. 1270. *Gilia latiflora* Gray = *G. miss.*
G. Gray.
- No. 1271. *Nemacladus ramosissima* Gray.
- No. 1272. *Carex praegracilis* W. ^{var. pinnatifida}
no. 1272a. *Eriophyllum wallacei* Gray.
Rays 8.
- No. 1273. *Baccharis*. pink-purple fls.
- No. 1274. *Chaenactis artemisioides* Gray.
foliosa var. *stenophylla* Gray.
- No. 1275. *Eriogonum* (Brewer, acc. Hall?)
(nuttallian)

It is some distance up the
San Jacinto River from San Jac-
into Town that the first oaks
come in. Mr. Hall calls them
Quercus agrifolia. Doubtless they are

Strawberry Valley, May 19.

of this species, but the trees as to
habit and esp. foliage look like
the *Quercus Wislizenii* trees about
Vacaville. Where in that region,
I wonder, does *Wislizenii* end and
agrifolia begin?

Populus Fremontii is common along
the stream and also down on the
river bottom near San Jacinto itself.
Also *Salix nigra* or what I take to
be such. Large trees. *Sycamore* trees
are common enough and above
join hands with the Yellow Pine!
The first conifer to appear is the Big-
cone Spruce, *Pseudotsuga macrocarpa*,
trees 150 or 175 ft. high or nearly.
After the *Eucnia* Oak disappears
the Kellogg Oak comes in after a bit.
Here in Strawberry Valley there

84 San Jacinto River Cañon, c. 2100 ft.

(to Strawberry Valley
5500 ft. Mt. San Jacinto.)

No. 1280. ^{Layia glandulosa (Hook.) N. & A.} ~~Blepharipappus~~
Rays 5, white! shorter than in glandulosus, being only 3 or 3 1/2 lines long. Odor very penetrating. - San Jacinto River Cañon.

✓ No. 1281. ^{microstachys Greene Hillsides} ~~Bryptanthus~~ " " " " See p. 84a.

✓ No. 1282. ~~Phacelia~~ ^{Hillsides, San Jacinto Cañon.} ~~leucantha~~. See opp.

No. 1283. ~~Minimus Douglasii~~. " "

✓ No. 1284. ~~Gilia~~ ^(= G. tenuiflora Bth.) ~~latiflora~~ Gray. " "

No. 1285. ~~Cichoriaceae~~ ^{Cleveland} ~~Malacothrix~~

✓ No. 1286. ~~Lotus~~ ^{Greene "on hillsides"} ~~grandiflorus~~ - " "

No. 1287. ~~Arabis~~ ^{sparsiflora Nutt} " " " " ^{acuta Gray}

✓ No. 1288. ~~Nemophila~~ ^{var. integrifolia Pursh.} ~~Menziesii~~. " "

No. 1289. ~~Delphinium~~ ^{Patens ssp. hepaticoides} " "

No. 1290. ~~Leucodermis~~ ^{Greene} ~~beanothus~~

No. 1291. ^{Layia glandulosa (Hook.) N. & A.} ~~Blepharipappus~~ gland. " "

No. 1292. ~~Pentachaeta~~ ^{" "} ~~aiorea~~

✓ No. 1293. ~~Minimus~~ ^{(Benth.) Gray. det. A. L. F.} ~~Firemontii~~ " "

No. 1294. ~~Orthocarpus~~ ^{Benth.} ~~purpurascens~~ " "

The nos. on this page are continuations from other pages as indicated. 84a
May 19, 1901.

- Cont. no. 1227. One sheet is distinguished hereby as 1227a, *Lotus strigosus*, approaching var. *hirtellus* Otley acc. to A. M. Otley.

- *Cryptantha microstachys* Greene. No. 1281

- No. 1282 cont. *P. brachyloba* Gray.

- *Arabis perennans* Wats. var. *longipes* Jepson. No. 1454. See p. 119.

- *Lathyrus latiflorus* Greene. no. 1279. Cont. from p. 83.

- *Phacelia distans* Bth. No. 1276. Cont. from p. 83.

- *Eucrypta chrysanthemifolia* Greene, Cont. from p. 83, no. 1277.

- *Salvia apiana* Jepson. Cont. no. 1238, p. 77.

- *Salvia mellifera* Greene. Cont. no. 1262.

- *Linanthus dianthiflorus* Greene. Cont. from p. 77, no. 1238a.

The nos. on this page are continuations from other pages. -

Strawberry Valley, Mt. San Jacinto

- *Hamophyla menziesii* H. & A. no. 1310

No. 1300. *Collinsia parviflora* Dougl.

"No. 1299. *Cryptantha muricata* Nels. & Mcbr.

"No. 1298a. *Cryptantha muricata* Nels. & Mcbr. var. *jonesii* Jtn.

"No. 1300b. *Gilia tenuiflora* Bth. var. *exilis* (Gray).

no. 1308a. = *Microsteris gracilis*

no. 1308b. *Eranthis micrantha* Greene var. *lepidota* Mcbr. See p. 87.

- *Plagiobathrys tenellus* Gray. no. 1308, p. 87.

- *Lathyrus laetiflorus* Greene. no. 1423. Cont. from p. 115.

- *Petalonyx thurberi* Gray. no. 1399a. Cont. from p. 105.

- *Astragalus douglasii* Gray var. *parishii* Jones. Cont. from p. 85. no. 1301.

- *Lupinus excubitus* Jones var. *johms-tonii* C. P. S. M. No. 1312. See p. 87. Revised det. = *L. albifrons* var. *austroriparianus*

Japan.

- *Parosela fremontii* Vail var. *californica* Jepson. no. 1348. Cont. from p. 101.

- *Condalia parryi* Wehrb. no. 1337. See p. 100.

Strawberry Valley, Mt. San Jacinto.

May 19, 1901.

5500 ft.

micrantha var. *lepidota* (Gray).

No. 1295. *Cryptantha* ~~Hillioides~~ near

Black Hill on road to Strawberry Val.

No. 1296. *Linanthus* *Gilia Lemmonii* Gray. " "

No. 1297. *Lupinus concinnus* " " Agardh.

No. 1298. *Arctostaphylos glauca* " " "

No. 1298a. *Cryptantha muricata* var. *jonesii* Nels. & Mcbr. See p. 84b. " "

No. 1299. *Cryptantha* ~~muricata~~ *parishii* Jones. See p. 84b. " "

No. 1300. *Collinsia* - Strawb. V. See p. 84b. " "

No. 1300a. *Mimulus floribundus* Dougl. det. A. L. G. " "

No. 1301. *Astragalus* ~~parishii~~ *douglasii* Jones. Cont. p. 86. " "

No. 1302. *Euphorbia Palmeri* " "

No. 1303. *Trifolium*. See note on p. 83.

T. monanthum Gray var. *granitium* Parry. 134.

- Sugar Pine on ridges. *Pinus Parryi*

at head of valley - sufficient for

a foot at most. *Calochortus in-*

venustus grows here, acc. to Mr.

Hall, also *Rhododendron occidentale*

Pine Forest here thin - but much

of it cut out. *Abies Louiana*

here also. (No. 1304)

Strawberry Valley.

5500 ft.

Mt. San Jacinto

- *Astragalus Parishii* - stems or
calyxes often red; leaflets 21,
3 counts; flowers yellowish,
the banner much longer than
the equal wings and keel;
stems descending; all the
lower racemes are naked,
flowers fallen; does it not
set fruit freely or only the
later (upper racemes)? (#1301)
- *Linum Lewisii* - fls. pale blue.
Stamens broadened into an oblong
dilation at base.
- *Libocedrus decur.* - 5 ft. diam.
- Kellogg Oaks, 70 ft. high.
- Yellow Pine, 100-120 ft. high.
- *Leanthus divaricatus* Nutt.
blue fls.
- *C. cordulatus* - white fls. - low
spreading habit of Sierra Shrub.

May 19, 1901

- No. 1304. *Abies* ^{concolor} ~~Louisa~~ fls. ♂
- No. 1305. *Arctostaphylos* ^{pauciflora} ~~Pink-~~
^{drupacea} ~~the~~ ^{Br.} red fls. Sepals glandular-chate.
Fruit glandular short-bristly.
Shrub 9 ft. high (= *A. drupacea* Michx.)
- No. 1306. *Ribes glutinosum* var.
^(R. nevadense Kell.) *nevadense*. Petals very small.
Style very short. Whole
aspect of fl. dif. from Berkeley
plants. Corolla very inconspicuous.
Flowers in anthesis not open
as in Berkeley plants. Calyx lobes ^{erect}
- No. 1307. *Euphorbia Palmeri* - see
no. 1308 b. See p. 84b. 1/2, 2, 3, previous note.
- No. 1308. *Euphorbia tenella* (Gray).
no. 1308a. See p. 84b. See p. 84b.
- No. 1309. *Viola* ~~pubescens~~ ^{Kell.} ~~pubescens~~ ^{Quercetorum} B. & C.
cf. with Howell Mt. plants.
- No. 1310. *Nemophila insignis*
See p. 84b. fls. blue with white
center
- No. 1311. *Gilia*.
- No. 1312. *Lupinus*. Fls. lavender,
yellowish white spot on banner
cf. p. 84b. changing to dark lavender

Thomas Valley.

4400 ft.

Mt. San Jacinto Range

- No. 1313. Boulder Pine. Trees 50 ft high and less, unbranched trunk, dark green foliage or often with a yellowish cast. Branches often very long (25 ft) and straight, yellow pine here has very crooked branches on the whole. - Chalk Hill to Thomas V.
- ✓ No. 1314. Lotus. Fls. yellow, *strigosus* var. ageing to red-brown. *L. hirtellus* Greene. Chalk Hill.
- No. 1315. *Amorocoma aculeata*. Sandy hillside + sand bed of stream. Peduncles prostrate before flowering, erect in fruit. Chalk Hill, Mt. San Jacinto.
- ✓ No. 1316. *Gilia exilis* (Gray). " " " " See p. 100a.
- No. 1317. *Hulsea vestita* var. *callisepala* Hall.
- ✓ No. 1318. *Yucca Whipplei* Torr. Filaments very thick and large, and anthers small.

May 20, 1901

Thomas Valley, at Thomas Ranch,
4394 ft. elevation, U.S.G.S.

californica Cham.

No. 1319. *Eschscholtzia* (Chalk Hill)
- *Yucca Whipplei* - Flowering stems in bud, stripped, roasted, eaten by Indians. "Lots to eat here if a man is acquainted". Tastes like Sugar Cane. "Sweet, I tell you". -

No. 1320. *Layia platyglossa* (Gray) ssp. *complanata* Keck

No. 1321. *Pentachaeta aurea*. Color hillsides golden. Well-named. Blossoms promptly in afternoon. Abundant between Chalk Hill and Thomas Valley.

No. 1322. *Layia platyglossa* ssp. *complanata* Keck
Blepharipappus. Rays yellow. Abundant in fields of Thomas Valley.

Thomas Valley

4400 ft. Mt. San Jacinto Range

- ✓ No. 1323. *Pectocarya* *pericillata* A. DC.
 ✓ No. 1324. *Gilia* *Lemmonii*, very
 abundant from Chalk Hill to
 Thomas Valley. = *Linanthus* *Lemmonii*
 greens.
 No. 1325. *Mulla serotina* Greene.
 Thomas Valley.
 No. 1326. *Nolina*. Thomas V.
 Five - six ft high
 No. 1327. *Astragalus* *sp.* Torr.
 Pods stipitate; fls. very like
A. Parishii. Erect plant. See p. 124a.
 No. 1328. *Glaucactis laevis*
 No. 1329. *Eriophyllum*
 No. 1330. *Stenotus interior*.
 ✓ No. 1331. *Lotus argophyllus* ^{green}
 ✓ No. 1332. *Peucedanum* Mo-
 havense B. & R.
 No. 1333. *brucifer*. *Descurainia* *pinnata*
 (Walt.) Brit.
 by the Indians to flavor Pinal-
 flour ground from corn or wheat.

= Vanderwenter Flat of topog. map. 91
 to Vanderwenter's ^{ranch}, May 20.
 S. of Hemet Valley, Santa Rosa Mts.

- Saw Thristle - used for "greens"
 by George Vanderwenter. "Makes
 good greens". Also used by
 Indians. He also uses *Chen-*
opodium album! for same
 purpose.
 - Camped last night, Monday,
 at Vanderwenter's. The wind blew
 very cold. Mr. Hall said that it
 was good for one to be cold
 sometimes. We were certainly
 in dead luck. The vegetation
 is fast changing to desert
 character. The flowering *Yucca*
Whipplei punctate the *Aden-*
astoma-covered hills. But
 the cañon we came down was
 beautifully diversified in its
 bottom with tall *Eucinas*.

Vanderzenter's ranch,

4600 ft.

Santa Rosa Mts.

We got supper under great difficulties but how we enjoyed our game soup, eggs, and ham, bread and butter, and dates for desert. After a bit we went to the cabin to sit by the fire and have a chat with the father who is 82 years old. He is quite a philosopher and gave us his views on many subjects including matrimony: "It was always my idea that a fellow should get a few days grub ahead before getting married. You can't live on jawbone. Marriage is a mighty hot thing for a few days but it soon wears out and you've got to have a good solid foundation if it is to last and be comfortable."

to Palm Cañon, May 21.
of San Jacinto. 1901.

We leave our team and wagon at this place and go on to Palm Cañon with riding animals.

The ride is from a mountain plateau country down into the desert. As we go down more and more characteristic desert shrubs come in: *Philopsis* ^(linearis DC.), *Krameria* ^(no. 1403), *Zizyphus*, *Karwinskia*. There is plenty of Islay along the trail and an abundance of *Adenostoma sparsifolium*. We reached the head of Palm Cañon where is the last large grove of trees, and camped. The horses had good feed and as we had supper we gave vent to our enthusiasm.

Palm Cañon

S. Z. Mt. San Jacinto

Hoorah! Palm Cañon! Washingtonia filifera! A gorge with rocky bed and immense rocky slabs of a dull-red-brown forming its walls. The red looks almost weird in the twilight. In the darkness Hall suggested that the silhouetted tops, the great bunch of hanging dead leaves, close and thick, with the spreading palm leaves above looked like flower pots or better hanging baskets. What a hanging garden of Babylon! Eating our dates at supper time we feel like Arabs.

May 21, 1901

Measurements of trees.

No. 1 - 5 ft. 3 in. at 4 ft.

No. 2 - 7 ft. 6 in. at 4 ft.

No. 3 - 5 ft. 10 in. at 4 ft.

Several trees have been cut down. One fallen trunk measured 34 ft. to top of woody stem.

The leaves (full grown) are 2 to 8 ft. long.

Most all of the trunks have been burned.

The vascular bundles show on the inside. One can tear them off very readily. The cut stumps show the vascular bundles projecting in a regular

Palm Cañon (SE. Mt. San Jacinto).

forest, the soft pith wearing away readily.

- *Castilleja stenantha*, being visited by humming-birds.
- *Mirabilis californica*, var. *Corolla* pink, 3-parted, each division 3-lobed - wrong! Three flowers to each involucre; inner lobe of each fl. very much reduced. Stamens 4. Lobes of Calyx 4, 3 emarginate, the inner fourth one reduced. See No. 1406. ^{*Weddellia incarnata* Ell.}
- *Pterostegia drymaroides*, ~~*Cuscuta lobata*~~ in shade of rocks.
- No trees in the cañon save these palms. Lower down I find a small lone Cotton-wood. There are about 64 large trees. I should judge

May 21, 1901.

that there were about 12 trees in the first cañon south. In this cañon there are small trees, clear down to baby seedlings 8 or 10 in. high. There are about 9 or 12 dead trees, one with wood-pecker holes in it. About six stumps were seen where man had with his axe interfered with the natural course of things. ^{cf. 1405} *Jepson n. sp.*

• *Agave californica* L. - Five sepals; five filaments united above around the style into a platform-like membranous affair, covering the anthers. Very curious and filmy. Minute 5-celled fruit. See No. 1407.

Palm Cañon (SE. Mt. San Jacinto).

- *Amorpha* - 4 ft. h. banner black-purple; stamens distinct, longer than the banner which folds around them, meeting in front. Stamens 10. See no. 1343 ^{y. mohavensis Sarg.}
- *Yucca baccata* - 4 to 10 ft high, the inflorescence disposed to be short and protected by the leaves
- *Rhus laurina* - 15 or 18 ft. h.
- *Populus tremonti* - middle cal. type with pointed leaf and sinuate-dentate margin.
- Camped at noon, return to Vandeventer's, under some Cottonwoods by a fairly cool stream for desert country.
- Juniper in Spanish, Wakh-tah. = Hua-ta

May 21, 1901

- *Trichostema laevatum* var. *denudatum*. Middle lobe of lower lip of corolla dif. in color and form from the other four (which are alike), darker purple, white base with 2 purple spots, concave, notched at apex, obovate. Other 4 lobes ovate. No. 1335.
- *Spocynum cannabinum* - at Vandeventer's - Indians use the mature stems for making strings and rope. "They know how to work it so as to make fine rope." - Chas. Vandeventer.
- *Mentzelia* ^{involucrata Wats.} [no. 1353], seed used by the Indians for flavoring meal. Seed about the size of Radish seed. Samiya atolle = Indian name. Atolle = Spanish for mush.

(of mt. San Jacinto)

Palm Cañon and return

[alt. = rough approximation c. 3000 ft. for the plants as a whole. See p. 124a].

- *Bloomeria aurea* - Americans call it "Camass" and Spanish *Govena*. Indians use the bulb for food.

No. 1334. *Bloomeria aurea* Kell. - Van der VenterNo. 1335. *Trichostema parishi* Vasey
Romero. 10 (Yei-yo)
See 100a. IndianNo. 1336. *Monardella nama* Vasey
See p. 89b. 100a. 100a. 100a. 100a.No. 1337. *Zizyphus Parryi* Hook. & Arndt
Condalia 80 ft. h.No. 1338. *Eriogonum fasciculatum*
var. *poliferum* Small form, 14 in. h.- *Fraxinus coriacea* Wats. See no. 14, 599.No. 1339. *Pentstemon Clevelandi* Gray
ana. 10 to 12 ft. h.No. 1340. *Karwinskia Humboldtii*
(see opposite) 8 to 10 ft. h.No. 1341. *Baccharis*No. 1342. *Smilacina* See below. Haplo-
pappus

[No. 1341. Indians make tea of it and bind on head for headache. Mexicans call it *Vah-ta-mota*. Good feed for horses and burros. "Water Mootick" at Riverside. Water Mootick

- Cont. no. 1336. *M. nama* Gray var. *arida* Abrams- Cont. no. 1335. *Trichostema parishii* Vasey. see p. 99.- Cont. no. 1330. *Hugelia lasyantha* (Brand) Jepson. = *H. eremica* Jepson!- Cont. no. 1316. *Gilia latiflora* Gray.
no! = *G. exilis* (Gray).- Cont. no. 1340. *Forestiera neomexicana* Gray.*linearifolia* var. *interior* (Cov.) Jones

to Van de Venter's, May 22,
(s. of Hemet Valley). 1901.

in the books.] ^{paniculosa.}
No. 1343. *Amorpha* "Everybody
calls it Wild Locust around
here." - George Van de Venter. See p. 98.

No. 1344. *Prunus fasciculata*
^{gray 4 to 5 ft. h.}

No. 1345. *Astragalus*. fls. blue.

Trainasora. *A. vaseyi* Wats.

No. 1346. *Asclepias erosa*, Hoods
truncate. Hoods whitish. Horns
slender, curved in to center of
disk. Hoods becoming yellowish.

Petals greenish-white.

No. 1347. *Barrea divaricata* Cav.
~~Breosote~~ Mexican

call it there-zone-dia. Bot.

Cal. calls this Hideondo. Petals

"mugiculate" but very shortly
so. - 8 to 10 ft. h. ^{californica Walp.}

No. 1348. *Dalea* 2 ft. h. ^{Johnsonii Wats.}
^{form of.}

No. 1349. *Cotyledon lanceol.* ^{lata B. & W.}
^{= *Dudleya*}
chen leaves on desert to save life. Some-

of Mt. San Jacinto
Palm Cañon and return
c. 3000 ft.

times they carry it in pack. It is a little bitter but will save life when there is no water.

No. 1350. *Eriastrum eremicum* (Jeps.) Mason
Gilia floccosa. See p. 100a.

- Indians use seeds of white sage (*Salvia apiana*) to mix with ground corn. *Salvia* de Monte. Chia seed also used. But sage seeds have the best flavor.

No. 1351. Composite - Asteroid.

No. 1352. *Eriogonum*.

No. 1353* *Mentzelia involucrata* ^{Wats.}

No. 1354. *Ephedra*. ^{nevadensis Watson} Mexican

call it Can-u-tio. "Black-guards call it Whore-house Tea"

- Charley Van der Venter. Drink tea to cure clapp, kidney or bladder trouble.

- No. 1355. Composite

* See p. 99

1901.

to Van de Venter's, May 22
(S. of Hensel Valley)

consociata Tral. not

- No. 1356. *Agave deserti*. 8 to 15
Indians roast center of (H. h.)

plant. Mescal. "Sweet as honey"

- George Van de Venter.

+ No. 1357. Composite. White rays.
Chaenactis carphoclinia Gray.

No. 1358. *Eremiastrium bellioides* Gray.
(*californica* Nutt.)

No. 1359. *Bimondstadia* 4 to 5 ft. h.
(*chinensis* Link.) ^{Langh. & S.}

No. 1360. *Gilia schottii* Wats.

No. 1361. *Chilopsis saligna* Don

Very abundant in cañon
bottom all the way from Palm

Cañon to Van de Venter's.

No. 1362 *Carex prostrata* W. Booth. Det. K. K. M.

No. 1362a. *Lotus* - prostrate, 4 ft.
L. heermannii

broad, widely spreading
branches. *L. eriophorus* Greene
var. *heermannii* Ott.

No. 1363. *Eummeaanthra pendula* Kora 13 ft.
Det. A. L. G.

No. 1364* *Mimulus hastatus* Greene.

No. 1365. *Parietaria* ^{floridana Nutt.} ~~det. A. L. G.~~

No. 1366. *Pentstemon* ^{virgatus} ~~virgatus~~

(= * *M. guttatus* B. G.)

Gray

Palm Cañon/and return
c. 3000 ft.

- No. 1367. *Silene antiorrhina* ^{Green} ~~Lin.~~
 No. 1368. *Mimulus pilosus* (Benth.) ^{Green}
 No. 1369. *Bastillea stans* ^{Hyptis emoryi Torr.}
 No. 1370. Labiate. Shrubby 4 ft. h.
 No. 1371. *Krameria parvifolia* ^{Bth.} 1 to 1 1/2
 No. 1372. *Yucca mohavensis* ^{= Y. Schidigera Rostk. Bth.}
 No. 1373. *Pinus monophylla* ^{Torr.}
 No. 1374. *Euphorbia*. Bush-like
 low perennial. *E. polycarpa* Bth.
 No. 1375. *Baccharis*
 No. 1376. *Mirabilis froebellii* ^{Greene}
 No. 1377. *Brunus* 6 ft. h.
 No. 1378. *Prosopis juliflora* ^{var. Torreyana Torr.} DC. var. glauca
 No. 1379. *Acacia greggii* ^{Gray}
 No. 1380. *Salvia Pycnocephala* ^{Jepson}
 No. 1381. Composite
 No. 1382. (Discarded) *Lotus rigidus* ^{Greene}
 No. 1383. *Salazaria mexicana* ^{Torr.}
 No. 1384. Composite
 No. 1384a. *Opuntia*

See p. 158a

to Van de Venter's, May 22,
s. of Hemet Valley. 1901

- No. 1385. Composite. *Trixis californica* ^{Hell.}
 No. 1386. *Physalis crassifolia* ^{Benth.}
 No. 1387. *Marsippospermum densiflorum* ^{Wats.} 4 ft. h.
 No. 1388. *Mimulus floribundus* ^{Dough.}
 No. 1389. *Chorizanthe brevicornis* ^{Det. A. S. G.}
 No. 1390. *Mirabilis bigelovii* ^{p. 108}
 No. 1391. *Carex Hasselii* ^{Bailey, Det. K. K. M.}
 No. 1391a. *Gnaphaloid*.
 No. 1392. *Allium lacunosum* ^{Wats.} white fls.
 No. 1393. *Carex teneraeformis* ^{Mackenzii, Det. K. K. M.}
 No. 1393a. *Philibertia heterophylla* ^{Jepson}
 No. 1394. *Krameria canescens* ^{Gray} 2 or 2 1/2 ft. h.
 No. 1395. *Eriogonum molestum* ^{var. davidsonii}
 No. 1396. *Gilia* ^{var. arenostachya Jepson}
 No. 1397. *Salvia crenulata* ^{Jepson}
 No. 1398. Composite
 No. 1399. *Carex teneraeformis* ^{Mackenzii, Det. K. K. M.}
 No. 1399a. See p. 84a. *Krameria parvifolia* ^{Gray}
 No. 1400. *Argythamnia* ^{Euphorb.}
 No. 1401. *Eriogonum thurberi*
 No. 1402. *Mimulus parishii* ^{Greene}
 cf. Grant, Monog. *Mimulus* p. 236.

of Mt. San Jacinto

Palm Cañon and return
c. 3000 ft.

- No. 1403. *Krameria canescens* ^{= K. Grayi}
 No. 1404. *Proton* ^{*californicus* Müll. Arg. Gray} Dioecious.
 No. 1405. Composite. ^{*Hofmeisteria* Planch. *seta* Gray.}
 No. 1406. *Mirabilis californica*

See p. 96. var. No. 1407. *Allionia incarnata* T.No. 1407. See bottom p. 97. = *Argemone californica*No. 1408. *Viguiera* ^{*deltoides* var. *parishii* Benth.} 2½ ft. h.No. 1409. *Nicotiana trigonophylla* ^{*racemosa* Gray.}No. 1410. *Chaenactis* ^{*carolinensis* Gray.}No. 1411. *Carex alba* Bailey. Det. K.K.M. (Sang.)No. 1411a. *Yucca Mohaveensis* ^{= *Y. schidigera* Reel.}

Filaments slender. Plants with short but distinct trunk. Peduncle short.

No. 1412. *Juniperus californica*.

Shrubs 12 + 14 ft. high.

looser foliage and more open habit than Sierra Juniper

Where are the "horrors of the desert"? It is beautiful. Men are so prone to say the worst of strange countries and each other.

= Vanderventer flat of topog. map.

to Van de Venter's, May 22
(s. of Hemet Valley). Santa Rosa Mts.

- *Adenostoma sparsifolium* - 10 to 13 or 15 ft. h. - peculiar looking shrub on account of its chocolate-colored shreddy bark, its foliage "in clusters" at the end of the branches, its thin or slender habit as opposed to fasciculate which is denser or at least more compact.

- *Quercus agrifolia*, quite a grove of good-sized trees at Van de Venter's.- *Rhus trilobata* Nutt.

- *Abronia villosa* - calyx limb 1 or 2 lines broad, the limb slightly broader towards outside of head. Flowers in head 15. Lobes deeply notched; flowers pink; tube a trifle over 1 in. long.

(S. of Hemet Valley)
(Santa Rosa Mts.)

Van de Venter's, May 23.

4900 ft.

No. 1413. *Carex Hasselii* Bailey, Det. K. R. M.

- No. 1413a. *Pentstemon centranthifolius*, corolla 1 in. long. Sterile stamen glabrous. Corolla obviously bilabiate but the lobes almost equal.

? 1390

- *mirabilis multiflora*. Flowers rose-pink. Calyx-limb $1\frac{1}{2}$ in. broad. Calyx $1\frac{1}{2}$ to $1\frac{3}{4}$ in. long. Lobes notched. Flowers to each involucre 6.
- *Oenothera californica* - fls white, fading pinkish; petals obcordate, with an apiculation in the notch.
- *Rhamnus californica* ^{crocea} var *ilicifolia*. Rather frequent shrub. Flowers 4-merous.
- *Rhamnus californica tomentella* Frequent.

Boyote Cañon, May 24.

Riverside Co. c. 3000 ft.

- *Pentstemon Clevelandi*. Corolla crimson, bilabiate (but not strongly, the 5 lobes subequal. Sterile stamen bearded slightly on upper side, a trifle shorter than throat. See no. 1436a.
- *Pentstemon spectabilis*. Corolla blue. Stamen filaments strongly curved and ^{anthers} approximate in pairs on upper side. Sterile filament ^{nearly} glabrous ^{with few short scattered hairs} somewhat protruding on lower side. Throat large and open. Corolla strongly bilabiate, the lobes subequal as to size, but the lower spreading, the upper somewhat erect and then recurved. Mr. Hall ^{suggests} ~~says~~ *P. Clevelandi* is a hybrid between this and *P. centranthifolius*.

Boyote Cañon, May 24. - Riverside Co. - c. 3000 ft.

- *Gomphocarpus tomentosus*.
Hoods purple, cleft nearly or quite $\frac{2}{3}$ the way down, the hoods, however, strictly closed. - Between Van de Venter's and Boyote Cañon.
- *Stanleya pinnata*, suffrutescent, 4 ft. h. - Same loc. as preceding.

- Correction: For George Van de Venter read Charles Van de Venter. For *Rhus laurina* this trip read *Rhus ovata*.

- *Rhus trilobata* - rather common
- *Aphyllon comosum* - fls. large.
cf. no. 1432.
Corolla throat open, two marked ^{yellow} folds on lower lip between lobes and running down into throat.

The folds are "tubular" in a way, the edges meeting below. This

Santa Rosa, May 25 Indian Village, Riverside Co. 6500 feet.

- parasite is common on *Artemisia*.
- *Pinus Parryana* (*quadrifolia*); needles 3, 4, rarely 2. - Between Van de Venter's and Boyote Cañon
- Mountain White Oak, Yellow Pine, Incense Cedar, Kellogg Oak
- *Lotus argyreus*, ^{no. 1440.} fls. red in the bud, yellow in anthesis. Kell $\frac{1}{2}$ as long as wings which are much shorter than banner. Is this in general true of all *Loti* as apposed to *Astragal*.
- *Astragalus leucolobus* - fls. ^{↑ no. 1449.} purplish. Lips of wings approximate over keel by turning back of edges. ^{incurred} center of banner so belled or concave as to form a sort of throat closed in front side by keel. Dry sandy place,

Santa Rosa

Indian Village
Riverside Co. I

Peak of Santa Rosa, near El Toro Peak, overlooking the desert.

- *Pedicularis semibarbata* ^(no. 1449) corolla yellowish, especially the lower lip. Galea little longer than lower lip. Stamens hairy towards summit of filaments, the lower pair very, the upper pair slightly hairy. ^{no. 1450}

- *Ribes* sp. fls. pale pink; petals very small. Calyx lobes reflexed.

- altitude of village of Santa Rosa Indians, about 7000 ft.

- *Andibertia pachystachya*
Ribes sp.

Lupinus sp.

- *Barcodes sanguinea* Torr.

- Mt. White Oak. *Ribocedrus*

6500 ft.

May 25, 1901

- On the very cone of Santa Rosa Peak I found *Pinus albicaulis**, *ponderosa* (Jeffrey?), *Abies Lowiana*. From the summit one has a magnificent view of Salton Sea and the great stretch of desert waste beyond - burning sands, sun-flistered hills, eroded, cañons half-filled with debris, patches of black desert shrubs here and there, hazy, weird, mysterious. When I see these things I would I were a painter! When I hear fine music I would I were a musician. When the winds sing in the tops of the balmy pines I would I were a poet. But I am none.

[X = *flexilis* !!]

Santa Rosa Peak, May 25, Riverside Co. 1901.

Santa Rosa Peak is higher than El Toro. There is a saddle between $\frac{1}{2}$ mil long perhaps, we went up to this saddle where Mr. Hall left his horse. We then worked along the north easterly or desert side. The summit which we reached, proved not to be the ^{real} summit. I started for a second summit. From this place I saw the last cone-like summit with the monument on top. It took but a short time to scale it although it was very steep and all boulders. There was a great view of the desert. Only the first peak, reached both by Hall and myself, can be seen from the village.

= Vandeventer's flat of topog. map.

Van Deventer's, May 24, 1901. (Santa Rosa Mts.) 4900 ft. ^{steroides H. & G.} ~~carpholium~~ ~~gray~~

- No. 1414. *Chamaecrista* Van Deventer's
- No. 1415. *Astragalus* ^{See p. 124.} Annual. "
Allophyllum violaceum (Heller) A. & V. Greene
- No. 1416. *Gilia* Van Deventer's
Gilia ~~gray~~ ^{green.}
- No. 1417. *Castilleja* Van Deventer's
= *Eriogonum eremicum* (Jeps.) Mason
- No. 1418. *Gilia floccosa* Van Deventer's
= *Hugelia eremica* Gipsos!
- No. 1419. *Eriogonum foliosum* Nutt. "
- No. 1420. *Pectocarya setosa* Gray. "
- No. 1421. *Phacelia curvipes* ^(Torr.) "
- No. 1422. *Oenothera biortia* ^{Nutt.}
acaulescent and caulescent
forms (side by side), otherwise
identical. ^{Brickellia}
Brickellia ^{frutescens Gray}
No. 1423. *Lathyrus* ^{laetiflorus V. det.}
^{See p. 848.} *Brickellia* ^{linifolia Eaton.}
No. 1424. *Composite* Van de V.
^{No. 1425a.} *Carex alba* Bailey. ^{Det. K.K.M.}
No. 1425. *Calyptridium monandrum* ^{Det. K.K.M.}
^{No. 1426.} *Carex multicaulis* Bailey. ^{Det. K.K.M.}
No. 1426a. *Lotus* Van de V. ^{See p. 1248.}
No. 1427. *Trifolium* Van de V. ^{See p. 124a.}
No. 1428. *Streptanthus simulans* ^{See p. 124b. Coyote Canon.}
No. 1429. *Delphinium* ^{Parryi Gray.}
Van de V.

Santa Rosa Indian

Santa Rosa Mts. (Riverside Co.)

No. 1430. *Asclepias* (Gompho-
carpus. See note prev.

p. 110. May 24. Van de Venter's

No. 1431. *Arabis glabra* " Germh.

No. 1432. *Aphyllon comosum* Vander-
Wate. See p. 110, 111

No. 1433. *Nolina* Road to Coyote

No. 1434. *Oxytheca trilobata* Coyote Cañon

No. 1435. *Blaenactis* See p. 124.

No. 1436. *Carex praegracilis* W. Det. K. K. M.

No. 1436a. *Pentstemon blewlandii* " See p. 107. Gray

No. 1437. *Quercus* Shrub 7m 8

ft. h. Coyote Cañon.

No. 1438. *Quercus Palmeri*

Shrub 10 or 12 ft. h. Coyote Cañon.

No. 1439. *Phlox austro-montana*

Gr. Coyote Cañon. (See p. 111.)

No. 1440. *Lotus* (argyrea Greene.) Coyote Cañon.

No. 1441. *Uelaea Parishii*. Near

See next p. Santa Rosa Indian Village.

No. 1442. *Stenotus* " " "

- *Haplopappus linearifolius* DC.

Village, May 25, 1901.

6500 ft.

- *Aphyllon comosum* - "good for
toothache - root; piece put right
on tooth or in cavity. Cures
worst kind of toothache."

- John Van Deventer. cf. No. 1431

- *Bambucus glauca* - Sarsco -
dried flowers used for fever,
taken as a tea. Japiviro.

- Tree Poppy - Mal de Ocho = Bad
eye. "If you smell it, get it in
your eye, sore eyes" Dendromecon
rigida Benth.

- Lán-tee-hee-yaw. - *Lipidum pin-*

gicium L. No. 1457. Used for flavoring soup, peppery.

- *Uelaea Parishii*. Intensely odorous

No. 1443. *Streptanthus*. Near

5. *compressus* Wats. Santa Rosa Indian Village.

No. 1444. *Quercus Morehus* Kell.

Santa Rosa Indian Village

No. 1445. *Gilia floribunda* (Gray) de
Santa Rosa Indian Village.

Santa Rosa Peak.

(Rivernide Co.)

- ✓ No. 1446. *Amorpha fruticosa* L.
 No. 1447. *Claytonia spathulata* ^{Donn} ~~Both~~
~~tomifolia~~ Both ^{the} above from Santa Rosa
 Indian Village.
 No. 1448. *Astragalus leucolobus*
 Jones. Trail to Santa Rosa Peak.
 See note several p. back, p. 111.
 ✓ No. 1449. *Pedicularis semi-*
barbata. See note several pages
 back. ^{p. 112.} Trail to Santa Rosa Peak.
 ✓ No. 1450. *Ribes* ^{(*Cereum*) Dougl.} " " "
 See note prev. p. 112.
 No. 1451. *Castilleja* " " "
 No. 1452. *Pinus albicantis*. Only
 on the cone-like ^{flexilis} ~~Dougl.~~ Summit
 of Santa Rosa. The first
 trees were about 50 or 60
 ft. above the last saddle.
 They were 10 to 18 ft.
 high. The largest trunk
 seen was near the

May 25, 1901.

- summit - 2 ft. diameter. The
 trees were fruiting freely.
 They were associated with
Pinus ponderosa prob. var.
Jeffreyi, *Abies Louisa*. The
~~albicantis~~ ^{flexilis} was the highest tree,
 growing on the very tip-top.
Symphoricarpos oreophilus
 grew on the last cone and
Salvia (*pachystachya*) in
 last saddle.
 No. 1453. *Libocedrus decurrens* -
 only below saddle between
 Santa Rosa and El Toro
^{See p. 84a.} ^{*Panicula* var. *longipes* Nutt.}
 ✓ No. 1454. *Arabis* ^{*perennans* Wats.} ^{*spinescens* T. & G.} ^{See p. 124a.}
 No. 1455. *Stipa* - ^{Bayote Baldon.}
 ✓ No. 1456. *Leptodactylon purgens* ^{See p. 124b.} ^{*Grayii*}
^{*Grayii*} ^{See p. 117.}
 ✓ No. 1457. *Lepidium* ^{See 2 p. back}
^{var. *gibb.* (medium Greene)} ^{Gray.}
 ✓ No. 1458. *Aphyllon canosum* ^{See p. 117.}
 "Asparagus filig" See note prev.

= Vanderzenter Flat of topog.

Van Deventer's Ranch.

(Santa Rosa Mts.) 4900 ft.

No. 1459. *Pinus* ^{quadrifolia} ~~Parryana~~ (*quadrifolia*). Single tree on road to Coyote Canyon from Van Deventer. 18 ft. h. roundish habit. Cones collected. Needles 3, 4. (rarely 2).

- Van Deventer's Ranch - Oak grove of *Quercus agrifolia*, extends pretty well out towards Coyote Canyon, $\frac{1}{2}$ way. It is a curious sight, the Sage-Brush-covered plateau, gray as gray, with the worn green oaks rising out of it.
- Coyote Creek, *Pinus ponderosa* along creek like willows!

No. 1460. Agoseris - Van der

- Silene Parishii* - on Santa Rosa Peak, coll. by Hall.

to Calhulla, May 26, 1901

Left Van Deventer's Sunday afternoon and turned off, in Thomas Valley, on to the Calhulla road, going down Migger Jim Hill to Hamiltons. On the way down we noticed several roundish Parry Pine. Their habit was not only noticeable but it seemed to me that the foliage was of a ~~lighter~~ ^{lighter} green than in *Pinus monophylla*. Calhulla Valley to my eye looks desolate but there is a short grass on which the cattle feed and which keeps green on the low land all summer. The night we passed with the Indians - at Salzo's - spelled literally. Salzo is in the little cove where until recently Ramona lived. Juan Acosta has moved a few miles away and Ramona also.

Cahuilla Valley to Riverside Co.

The ride to Aguanga was down grade at a lively trot all the way. It was very pleasant, travelling from slope to slope, and gathering flowers all the way! *Adenostoma sparsifolium* is used for fence posts for wire fencing in Cahuilla Valley. I should suppose them to be durable and they make a very neat fence.

The following were observed: *Philibertia*; *Adenostoma sparsifolium*, *A. fasciculatum* H. & A., *Yucca baccata*, *Simmondsia*, *Mirabilis multiflora*, *M. californica*, *Gilia Lemmonii*,

Aguanga, May 27, Riverside Co. 1901.

- all these near Aguanga. Also Mesquite (*Prosopis juliflora*) and *Chilopsis* (Linnaea DC.)
- "Coyote Tobacco" - *Nicotiana Bigelovii* - Charley Van Deventer
- Snows 2 ft. at Van Deventer some winters. At Santa Rosa Indian Village 4 or 5 ft. The Indians do not stay at the village in the winter but go down to the edge of the desert.
- It was very cold the night we got into an Indian cabin. The ⁱⁿ squaws, who spoke only Spanish, were dubious about taking us, but a young buck appeared, who spoke English and we were all right. That night water froze in the sauce pan.

Cahuilla Valley to (See p. 125)

(w. Riverside Co.)

No. 1461. *Allium fimbriatum* Wats.
Van Derventer's

No. 1462. *Calochortus* ^{palmeri Wats.} _{invenustus}

Greene. Pale pink-lavender fls. Van Der.
No. 1462a. *Calochortus invenustus* ^{asciaticum Gray.}

No. 1463. *Aphyllon* Van Derventer's.

No. 1463a. See p. 124b. *greggii* Gray var. *per-*
beanothous ^{greggii Gray var. per-} _{plexans Nutt.}
C. parviflorus Threl.

No. 1465. *Pectocarya* Thomas Valley

No. 1466. *Uropappus* ^{linearifolius}

No. 1467. *Plantago* " "

No. 1468. *Uropappus* ^{linearifolius}

No. 1469. *Astragalus* Cahuilla V. ^{See p. 124a.}

No. 1470. *Platystemon crinitus*

Greene Cahuilla Valley.

No. 1471. *Peucedanum* ^{dasy carpum T. & G.} Thomas Valley

No. 1472. *Astragalus douglasii* Gray.

Cahuilla Valley

No. 1473. *Delphinium* ^{parviflorum Gray.} Cahuilla V.

No. 1474. *Plagiobothrys* " "

No. 1475. *Iva* ^{canescens DC.} *axillaris* Pursh. " "

No. 1474A. *Trifolium* ^{See p. 124a.} " "

- *Trifolium variegatum* Nutt. var. *parviflorum* Wats. Cont. from p. 115. No. 1427.

- *Trifolium gracilentum* T. & G. No. 1474a.

- *Trifolium variegatum* Nutt. No. 1521.

- *Astragalus didymocarpus* H. & A. No. 1415.

- *Astragalus diopernus* Gray. No. 1469.

- *Astragalus filipes* Torr. var. *residuus* Jepson. No. 1327.

- *Astragalus filipes* Torr. var. *residuus* Jepson. No. 1469. See below.

- *Arabis perennans* var. *longipes* Jepson. No. 1454. See p. 119.

- Cont. no. 1428. *Streptanthus simulans* (Payson) Jepson. Collected at same spot and same time as Hall 1894 = Payson's type.

- Cont. no. 1469. *A. filipes* var. *residuus*

as Jepson n. var. (*Homalobus*

Mcgregorii Rydb. acc. P. A. Ryd-

berg.) For another *Astragalus* collected with this see no. 1472.

- Cont. from top of p. 100. The spms.

as a whole were collected along

the cañon from the upper palms

to Vanderventer Flat, that is from

about 2500 to 4500 ft.

- Cont. no. 1435, p. 116. *Ghaenactis* *gla-*

uosa DC.

- Cont. no. 1426a. *Lobelia strigosus*
Greene var. *hirtellus* Otley.
- *Lomatium lucidum* (Nutt.) Jepson.
Cont. from p. 125. no. 1484.
- *Vicia americana* Muhl. no. 1509.
Cont. from p. 135.
- *Salvia vaseyi* Jepson. Cont. no. 1380.
- *Lisianthus dichotomus* Bth. Cont. no. 1463a.
- *Cryptantha intermedia* Greene
no. 1554, cont. from p. 146.
- *Leptodactylon pungens* var. *hallii*
(Parrish). no. 1456, cont. from p. 119.
- *Cryptantha muricata* Nels. & Mcbr.
var. *gonensis* Jth.
Palomar Mt. no. 1505a. See p. 135.
- *Plagiobothrys nothofolius* Gray,
cont. from p. 137, no. 1526.

Aguanga, May 27, 1901.
Riverside Co. 2050 ft. Torr.

- No. 1476. *Fraseria Parryi*, 1½ to
3 or 4 ft. high. Inflorescence
simple or paniculate. Gland
yoke-shaped, or somewhat
horse-shoe shaped. Petal
whitish, dotted above gland.
No. 1477. *Arenaria*, ^{along base of} scented the
whole air with honey.
Covering a hill between
"Cahuilla & Aguanga."
- No. 1478. *Gilia*, Cahuilla and Ag.
^{= *Lisianthus dianthiflorus* Greene. *dianthiflorus* Endl.}
- No. 1479. *Ghoryanthus sticticus* ^{Parrish}
Between Cahuilla and Ag.
^{*californica* Nutt. *chimerica* " "}
- No. 1480. *Simmondsia* " " "
^{*typica* C. B. Wolf}
- No. 1481. *Rhamnus crocea* " " "
^{*tilata*}
- No. 1482. *Stillingia linearifolia* " " "
^{*tilata*}
- No. 1483. *Philbertia Aguanga*
^{*hortuensis* var. *fulva* & *phylla* T. & G.}
- No. 1484. *Perceadarnum Hassei* " "
^{See p. 124b. = *Perceadarnum* J. 2. C. & R.}
- No. 1485. *Cirsium quercetorum*
^{*drummondii*}
Cahuilla Valley.

Agustine's Ranch

San Diego Co.

2000 ft. Palomar Mt.

No. 1486, *Lasthenia*. Very
fleshy leaves. Cahuilla
Valley, alkaline soil.

- Many striking color effects -
Pentstemon centranthifolius Bth.
Oenothera californica - in
one case covering a
little hill at Santa Rosa
Indian Village.

- Cotton wood and Sycamore
the signs of water in a
dry country. The Sycamore is
here at Augustine's. Have not
met it since Riverside
or east of Riverside a day.
- Mr. Augustine does not dis-
tinguish between Chamiso
and chaparral. "The one Indian
and the other Spanish"

May 28, 1901.

- Trail to Smith Mt. from Aug-
ustine's. ^(Palomar mt.) Cross ditch. Towards
limbo. Pipe Line. Road. Gate.
Old Road after gate, left hand.
Trail to left, 3 little rocks. Sleep
little pitch and up again,
between two rocks. Down
into a creek, same direction,
cross, another little creek.
Burned cabin on rise.
Across, hill, bare bench.
right square for point,
turn ^{right} and go up creek and
find trail up hill, faint.
General direction, S.E. On
top, lose trail, dim. Skirt
edge of hill and drop into
French Valley and follow right
up. Shingled cabin.

Smith Mountain

San Diego Co

6000 ft.

{Palomar}

- *Heteromeles arbutifolia*, in bud
- *Calochortus albus* ^{Drayl.} in fl.
- *Collinsia bicolor* - in fl.
- cattle feed on Black Sage flowers and on Ribocedrus
- Mr. Augustine thinks that if the ^{Thorn} bees only had longer bills they could feed on the Lupines as the Bumble-bees do.
- *Datisca glomerata* B. & W.
- There is a curious little grass here which is constantly getting into one's ears.
- *Clarkia rhomboides* - in fl.
- *Mimodella lanceolata*, in fl.
- *Chaenactis antaemissaeifolia*, "
- *Lathyrus* (violaceus), crimson fls, keel broader than wing.

May 28, 1901

^{haematochiton} Wals.

- ✓ No. 1487. *Allium* ^{haematochiton} Ovary with 6 almost horn-like crests. Perianth white.
- ✓ No. 1488. *Collinsia* ^{Bluish-tinged} _{childii Parry.} white fls; sterile filament subulate or cylindric.
- *Phacelia saxatilis* on "burns"
- *Montia spathulata*.
- *Pinus boulteri*
- *Montia perfoliata*
- *Pseudotsuga macrocarpa*
- *Leurothoe integriramus* white fls. = *C. palmeri*.
- *Nana Parryi*, 8 ft. high, simple stems densely clothed with hairs, those toward the base hanging down palm-like. See no. 1489.
- ✓ *Rhus trilobata* and *diversiloba*

Smith Mountain
6000 ft. [Palomar.]

- We came up through a cañon which had been burned over. It was glorious with flowers and with young shoots of shrubs. Then down into a beautiful little meadow valley, Kootka, then up a very steep slope wooded with Kellogg Oak and above with Big Cone Spruces. Riding along the summit was like riding along a Sierra Ridge, the pines and spruces and oaks, with the shrubs of *Leurothoe integrifolia** covered with bloom. Only the pine (Yellow Pine) was scanty. *Libocedrus* in fair amount and also many specimens of Coulter Pine.
* = *palmeri* Brel.

May 28, 1901.

- *Chorizanthe fimbriata*, one fl in each involucre - provide for in Key under *Dichlamydena* section. No. 1496a.

[Also *Mirabilis speciosa*.]

- *Mimulus latipes*. Flowers clear yellow, undotted or spotted save deep in the throat. Relief folds longitudinally on inner lip, making a tubular process between them.

- *Osoarea macrostachya* Dc.

- Finally we pitched down into a genuine Sierra Meadow in which cattle were feeding, backed by hills covered with Big Cone Spruces, *Libocedrus*, diversified with an excess of Kellogg Oak just taking on its many-colored tints of earliest spring. This was French Valley.

Smith Mountain

San Diego Co.

6000 ft. [Palomar!]

- ✓ No. 1489. *Nanua Parryi*. Very common on the north easterly summit slopes of Smith Mountain among Kellogg Oak and Big Cone Spruces. See note previously, p. 129.
- ✓ No. 1490. *Lotus crassifolius* (Bth.) ^{androsaceus-green}
- ✓ No. 1491. *Linanthus* ^{androsaceus-green} ~~parviflorus~~ Greene. Common, = *L. acicularis*.
- No. 1492. *Stylocline gnaphalioides* Nutt. ^{gnaphalioid.}
- ✓ No. 1493. *Ribes amarum* Nutt.
- No. 1494. *Claytonia* ^{noticia} *spathulata* Torr. ^{ex Willd.}
Four sheets, showing forms with distinct bracts (lanceolate), united on one side and rounded united on both sides and toothed, perfoliate and entire.
- ✓ No. 1495. *Prunus virginiana* var. ^{1494 d} ^{1494 c} ^{1494 b} ^{1494 a} *demissa* Torr. French Valley.

May 29, 1901

- ✓ No. 1496. *Carex brevipes* W. Booth. Det. K. K. M.
- No. 1496. *Chorizanthe*. Segments 6, equal, fimbriate; pink in color. See p. 131.
- ✓ No. 1497. *Ribes* ^{Clevelandii Greene.} ^{French Valley.} ~~noezlii Regel.~~
- ✓ No. 1498. *Potentilla* ^{Horkelia Bolanderi ssp. Clevelandii (Greene) Kock} ^{sp. n.} Petals white. Samaras in Sierras.
- No. 1499. *Orthocarpus densiflorus* var. nov. Lower lip white wholly, therefore striking as a color form.
- No. 1500. *Cirsium drummondii* ^{Cirsium drummondii} ~~Cirsium drummondii~~ var. ^{acanth.} Corolla more deeply cleft on one side than on other.
- ✓ No. 1501. *Rosa*. Very summit ^{Gymnocarpa Nutt.} of Smith Mountain.
- ✓ No. 1502. *eanothus integrifolius* ^{palmeri} ^{tree} ¹ Bushes in full flower, ten ft. high or twelve. = *C. palmeri* Presl.

Augustine's Ranch

San Diego Co. n. slope Palomar. c. 3500 ft.

- Mr. Augustine calls *Lotus glaber* "Wild Alfalfa". It is a fine bee plant and, ^{further,} cattle feed will upon it.

No. 1503. *Carex teneraeformis* Mackenz. Det. K.K.M.

- The little valley lying between Augustine's Ranch and the sharp ascent to the summit of Smith Mountain is called Cootca*, pronounced Kootka, meaning in Indian, hidden.

- Mr. Augustine calls *manzanita*, Mountain Redwood.

He says the small wooden mortars made from the shrub are sold in San Diego under that name. He

call *Adenostoma sparsifolium* Bastard Cedar or

* cf. p. 201 infra

May 29, 1901.

[Smith Mt. = Palomar]

Ribbon Wood, its beautiful red-brown bark peeling off in large ribbon-like strips. He uses it for Firewood. Mr. Hall says it is brought into Riverside and sold as Desert Cedar.

No. 1503a. *Thalictrum* ^{*polycarpum*} 3 + 4 ft. h. Smith Mt.No. 1504. *Pseudotsuga macrocarpa*.

Summit Branches very long, 30 ft. long;

trees 10 to 110 ft. high. Smith Mt.

No. 1505. *Carex agrostoides* Mackenz. Det. K.K.M.No. 1505a. *Cryptantha* ^{*muricata* var. *Jonesii*} Smith Mt. See p. 124f.No. 1506. *Galium* Annual. " "No. 1507. *Collomia grandiflora* " "No. 1508. *Carex alba* Bailey. Det. K.K.M.No. 1508a. *Madia* Rays 8-10. " "No. 1509. *Vicia* ^{*americana*} Smith Mountain. See p. 124f.No. 1510. *Rubus parviflorus* Nutt.No. 1511. *Potentilla glandulosa* KootkaNo. 1512. *Lepidium medium* " "No. 1513. *Collomia giloides* Bth. ^{*virginicum* L. *Allophyllum* Greene.}var. *glutinosa* Gray.

Palomar Mountain

[Smith Mountain]

San Diego Co. 6000 ft.; Cotea = 3000 ft.

- No. 1514. *bryptantha* ^(intermedia Greene) Every where, the most common and prevalent species on a circuit of 300 miles. Kootka* Sometimes fls. slightly larger. ^{capitata Sims ssp. folia abrotanifolia Greene}
- No. 1515. *Gilia*, Kootka ^{lanceolata fimbriata}
- No. 1516. *Chorizanthe*, six perianth segments, all fimbriate. Color pink. Kootka. 3000 ft.
- No. 1517. *Cisium californicum* ^{var. paniculatum}, 5 ft. high and less. fls. white. Kootka. 3000 ft.
- No. 1518. *Minulus* ^{Brev. & Benth. Det. A. L. G.} Pronounced folds on lower lip, in relief, making a tubular process. fls. clear white.

* See p. 134.

May 29, 1901

Cotea Valley, Palomar Mtn., 3500 ft.

- No. 1519. *Antirrhinum baltianum*. Benth. fls. sometimes blue or bluish. Kootka.
- No. 1520. *Gilia latiflora* Kootka. ^{no! = G. exilis (Gray)}
- No. 1521. *Trifolium*. " ⁿ See p. 124.
- No. 1522. *Nemacladus obscura*, bilabiate, and the lobes equal, so that the flower appears almost or quite regular.
- No. 1523. *Gilia*. New sp? ^{Gilia pacifica (Mill.) (Horn)} Both, last Kootka. ^{diffusus Grant. Det. A. L. G.}
- No. 1524. *Minulus*. Each corolla lobe 2-lobed or emarginate. ^{Kootka}
- No. 1525. *Orthocarpus* ^{Gray} *Parishii* " ^{Kootka}
- No. 1526. *bryptantha* ^{Gray} or *Plag-* ^{nothofulva} *iobothrys*. Kootka, dry mesa. ^{Brachypoda (Torr.)}
- No. 1527. *Myrrhis* ^{Brachypoda (Torr.)} *argentea* R. ^{mutabilianum Benth.}
- No. 1528. *Antirrhinum* " ^{subsessile Grant}
- No. 1529. *Ceanothus* ^{leucodermis Gr.} ^{leucodermis} Flat-topped homeless fruit. "

Augustine's Ranch

San Diego Co.

2500 ft.

- No. 1530. ~~Polypogon~~ ^{Polypogon} lanceolata
B. & W. Two sheets of plants growing
side by side, one
showing straight unbranched
or almost unbranched divisions
to the cymes, the other
branched and again branched
after the fashion of middle
California forms. The petals
have the conspicuous dorsal
ridges, as in the plants
from Palm Cañon. Fls. yellow. 15 ft.
No. 1531. *Ceanothus crassifolius*
Torrey. 8 to 11 ft. h. horns on fruit conspic-
uous.
No. 1532. *Lupinus truncatus* Nutt.
No. 1533. *Trifolium vesicatum* Greene.
No. 1534. *Salvia mellifera* - see p. 158a.
No. 1535. *Velutaria*? = *Pseudoced-*
nium lucidum Jepson.

May 29, 1901

- No. 1536. *Fasciate Eriogonum*
^{var. foliolosum}
fasciculatum Radec.
May 27.
No. 1537. *Nemophila insignis*
Dougl. Smallish fls. Fruits on
see p. 158a. reflexed pedicels. French Val.
No. 1538. *Tellima*. Smith Mt.
No. 1539. *Amelanchier* ^{pallida} ^{smithii Nutt.} French Val.
No. 1540. *Veronica peregrina*. " "
No. 1541. *Ranunculus californicus* "
^{var. ludovicianus Jeps.}
No. 1542. *Collinsia parviflora*. Kootka
^(venerosus Wats.)
No. 1543. *Zygadenus* Trail to Kootka
No. 1544. *Wyethia ovata* J. & G. "
^{melanophylla Gray.}
No. 1545. *Sidalcea* L. Trail to Kootka.
No. 1546. *Calochortus albus* Dougl.
No. 1547. *Monardella macrantha*
Gray var. Flowers beautiful vermilion.
(Hallii Abrams) Kootka to Summit of
Smith Mountain.
- *Apocynum androsaemifolium* L. See no. 14, 626.

French Valley, May 28.
6000 ft.

We passed the night in a log cabin in the meadow and built up a roaring fire so that we went to bed warm as toast. It was cold, for a heavy fog lay all over the mountain, or perhaps better, cloud. The echoes were splendid at this point and when the clouds lifted a bit we repeated California and Berkeley to hear it spelled four or five times. The next morning was sparkling and beautiful. The view from our cabin down was superb. The beautiful hill surrounding the meadow showed the symmetrical spine

and Return, May 29.

- of the conifers intermingled with the round-topped oaks.
- On the way up I noted many Kellogg Oak which had been through a forest fire, the foliage and many limbs completely burnt away, yet green bunches were putting out here and there all over the tree.
 - *Rhododendron occidentale* Gray.
French Valley.
 - *Libocedrus*. 15 ft. 8 1/2 in. at 4 ft - circumference - French Valley.
 - San Jacinto is the most commanding landmark from the Augustine Ranch, showing up splendidly.
 - *Populus trichocarpa*, on the Kartka

(Palomar Mt.).

Augustine's Ranch.

The ranch house is 2000 ft.

What a welcome we had at Augustine's. There was never more genuine hospitality or more appreciated by a traveler who had been out to the desert and had lived among Indians and Halfbreeds. There was the finest hay for our horses and milk and honey for ourselves. It is the first prosperous home-like place I have seen in some time. It flows with milk and honey. And the milk and honey now mostly flows one way.

[Mr. Augustine says there is only one thing the matter with the beautiful Kookka. What is that? It doesn't belong to us! It belongs to Mendenhall]

-Charley Van Deren calls *Rhamnus tumentella* Bear Root, the bears in former times eating the berries.

May 30, 1901

No. 1548. *Silene laciniata*. Fls. crimson. Petal blade 4-cleft, the lanceolate lobes all equal or subequal, or the lateral reduced to small teeth. Bristles erect, denticulate. Ovary stippled distinctly, oblong in shape. "Climbing" among bushes, sometimes 5 ft. h. Petals not nearly so broad (and consequently not so showy as to size) as *S. californica*. Petals $3/16$ in. broad. *S. californica* is low, 6 to 12 in. high.

[Santa Rosa and El Toro are very considerable landmarks from here (being second only to San Jacinto). They are really only one great mountain. If an American had done the naming it would have been Santa Rosa Mountain with an East and a West Peak.]

Temecula River.

betw. Aguanga and Temecula, sur. River
(2050 ft.) (1019 ft.) side Co.

quadrate brownish markings at base, the lobe or lobes of lower lip similarly marked but the marking smaller or indefinite. - Stream bed.

No. 1553. *Eriogonum* ^{thurberi} " " *Perianth*

No. 1554. *Cryptantha* ^{argentea} - Stream bed. ^{transversely of} ^{face p. 124 & d. 3}

No. 1555. *Neucladus* *ramo-*
sissimus. Corolla lobes

spreading rotately, but 3 in lower lip larger than 2 of upper lip. Corolla white, pink tinged on back of lobes. (The flowers with 6 lobes, 3 in each lip!). not *ramosissimus*.

- *Argemone Mexicana* makes a great show in the river bed.

May 30, 1901

We lunched in the river bed which was gay with many sorts of animals. Towards Temecula we passed through a rather fertile valley* with many alfalfa fields and high stacks of hay which the hay-makers were putting up. Every now and then we saw in a little nook or dale of the hills a great city of beehives. About 4:30 we reached the end of this valley and saw the sharp cut of Temecula Cañon. Near it is the old town of Temecula, the scene of one of the chapters in Ramona. New Temecula is a dirty grain and stock farm with a neat Santa Fe depot, for it is

* Temecula Valley.

Murietta, Riverside Co.
1033 ft.

"on the railroad". We then turned our direction, passing Murietta - terribly pathetic as a boom town on account of its dead orchards of peach, apricot and plum, and deserted or decaying houses; passing Wildomar; passing great hotels with nothing around them; passing prettily situated Elmore and Escondido Lakes - and finally lunching at the old Water Place, coming through the Temescal Wash which was remarkable for its display of *Romneya Coulteri* (8 or 9 ft. high, the flowers $6\frac{1}{2}$ in. across!), for its great *Eriodictyon tomentosum* bushes

May 30, 1901

a shrub 10 ft. high; for its *Gilia virgata*, no. 1574, the lobes so turned as to make a physiologically bilobiate flower, 3 lobes above and 2 below, the 3 above with markings at base, the 2 below with the markings smaller or indefinite, or often with 3 lobes above and the 2 others turned laterally, so as to leave a sort of vacant place below.

- We camped near Murietta, going in the next morning (May 31) to Elmore and in the evening to ^{Coldwater} ~~Coldwater~~ Canyon.

- *Sonchus asper*, - observed near Murietta. ^{californica,}
- The Poppy, with *Romneya*, in fl. - ^{Temescal} ~~Temescal~~ Wash

Walters Ranch.

Jemescal Cañon,
Riverside Co.

- All along the road from above Elmore they are laying a great pipe line to bring water from the great underground supply of Perris Valley, down to Corona (South River side). And yet Perris Valley people have spent a vast sum bringing in water from Bear Valley, not knowing they had a great underground supply ^{beneath} at their very doors - the sunken San Jacinto River!
- No. 1556. *Glycydemia tinella* (Nutt.) T. & G. *Hemizonia*. Rays white, 3-parted and trefoil-like, 5 in a head. Disk flowers 4 or 5 - Jemescal Wash, dry hill
- *Phacelia crispida* - Jemescal Wash.

c. 1100 ft.

May 31, 1901.

= A. Serenana

no! = A. bracteosa.

- *Atriplex Breweri* (?), annual - can find only staminate fls.
- Walters Ranch. - No. 1578.
- *Heliotropium curassavicum* - Walters Ranch. Also *Melilotus Indica*.
- Went ^{on} to Jemescal, a post office, wayside stopping place, ^{and with a pretty school.}
- No. 1557. *Chorizanthe* - fls. white - *procumbens* Nutt. sandy mesa, Augustine's Ranch.
- No. 1558. *Lotus glaber* - ^{gracilis.} Augustine's Ranch, Palovina. ^(var. *bracteosa* Nutt.)
- No. 1559. *Convolvulus occidentalis* Gray, var. *leptophyllus*, Augustine's Ranch. Quantity of what seemed the same thing in the mesa-valley this side of Elmore
- No. 1560. *Lonicera hispidula* var. *subspicata*. Fls. pale yellow, quite different from species.

[Temescal Wash]

c. 1100 ft. Riverside Co.

Augustine's Ranch. Sometimes
a very distinct isolated shrub

with woody stems 4 or 5 ft. h.

No. 1561. *Peony* ^{*Paeonia californica*} - Augustine's ^{Comp.}

No. 1562. *Eriogonum fasciculatum* ^{var. foliolosum poliferum} ^{see p. 158a.}

Two types: (a) Tall, large open
cymes, green foliage: (b) Lower,
smaller cymes or usually con-
densed into a head, gray foliage.

No. 1563. *Cirsium* ^{*occidentale*} 5 ft. h. -
heads paniculate. Flowers red or reddish-
brown. - Dripping Spring. ^{*C. occidentale* (Nutt.)}

No. 1564. *Lathyrus* (violaceus).
^{*L. latiflorus Greene*}
Climbing 5 ft. high or 6 ft.
over shrubs. Augustine's
Ranch, common as far
as the Kootka. Leaves either
broad and more or less
oblong, or very long and
narrow, even in the same branch

May 31, 1901

This is a very showy thing and
never ceases to delight me.

No. 1565. *Pentstemon cordifolius* ^{Benth.}
Racemes appearing from the tops
of shrubs 5, 7 and 8 ft. high.

- Between Augustine's Ranch and
head of the Temecula River.

No. 1566. *Rhus ovata* ^{Wats.} Temecula
River, on dry hills.

No. 1567. *Ischscholtzia californica* ^{Cham.}
with small flowers. Valley of
the Temecula River near Tem-
ecula Cañon. Small part
of plant.

No. 1568. *Trigonotis* ^{*foliosa* Nutt.} Near Temecula ^{H.B.K.}

No. 1569. *Gutierrezia foetidissima*
Stems 10 or 12 ft. long. Leaves
erect and with the sides turned
in from the midrib at an
angle. These "half-closed palms"

Temescal Wash.

c. 1100 ft.

Riverside Co.

were often all turned toward sun.
Temecula River. Riverside. Temescal.

My specimens from near Elsinore.

No. 1570. *Buscuta* on *Frankenia*
Near Elsinore. *salina* Engelm.

No. 1571. *Romneya Coulteri* ^{Wats.} see
note previously. ^{p. 148.} Abundant

in the Temescal Wash from
near Lake Elsinore to the
Walters Ranch and Temescal
and 2 or 3 miles beyond
the last place in the direction
of Borman. As I understand
Mr. Hall it does not cross
the Santa Ana range to the
west. (Part of the Santa Ana
Range is now a forest res-
ervation) There are only a
few places in the state where
this is known to occur.

May 31, 1901

No. 1572. *Delphinium cardinale*.

Very beautiful, growing with
Romneya in the Temescal Wash,
but, little of it seen. Stems
6 ft. tall!

No. 1573. *Mimulus Fendleri* ^{Det. A. S. G.}
Gray. Sand of the Temecula Wash.
^{virgata Bth.} ^{p. 149.}

No. 1574. *Gilia* ^{See note previously}
^{= *Eriogonum saphirinum* sp. *dasyanthum*}
Color blue, immaculate; towards
Elsinore the flowers become

nearly white. My specimens
from the Temescal Wash.
[The three lines stricken out in
the previous note to this species
^{(now restored).} should stand.] Specimens
examined later were un-
spotted as noted above.

No. 1575. *Tetradymia comosa* Gray
^{Composite.} Very bushy.
3½ ft. high. *Tetradymia*
comosa Gray.

Temescal Wash.

c. 1100 ft.

Riverside Co.

No. 1576. *Hemizonia*. Ray 5,
broad, yellow, 3-toothed. ^{Temescal}

No. 1577. *Ptiloria* - fasciated. ^{Cal W.}

^{Discarded}
L.H. Saw several more, some
quite as pronounced others
less so. - Temescal Wash.

No. 1578 - *Atriplex* ^{= *A. serenana*} *bracteosa* - Waller's
Ranch, Temescal Wash. See previous
note, p. 151.

No. 1579. *Plus laurina* ^{Nutt.}. Shrubs
12 + 14 ft. high, with clustered
stems and broad roundish
tops

No. 1580. *Gutierrezia* ^{*sarothrae* (Pursh) B. & P.} *anthracina*

Near Borona. c. 900 ft.

No. 1581. *Baccharis*. Water Mottick
Wash near Borona. c. 900 ft.

No. 1582. *Nicotiana Bigelovii*
Watz. Wash near Borona. c. 900 ft.

Borona, June 1, 1901

c. 900 ft.

(Benth.) Greene.

No. 1583. *Mimotea* ^{the} *pilosa*.
Wash near Borona.

- Camped in a wash north of
town. Mosquitoes but not like
the Rio Sacramento or San Joaquin.
Reached Riverside by 10:00 A.M.
via the beautiful Magnolia
Arms. For its whole distance
is a line of Popper trees in the
center; Near Riverside for four
or five or perhaps 7 or 8 miles
there are rows of palms
alternating with Grevilleas
(now in fl), or other trees, on
either side of the road. In
addition many beautiful
residences.

Riverside, June 1.

Woods: *Chenopodium album*
and *murale*; *Amaranthus albus*
and *retroflexus*; *Xanthium*
spinosum; *Polygonum*
aviculare; *Portulaca oleracea*.

- In Calumilla Valley the desert
expanse was quite thickly
covered with *Erodium ci-*
ntarium! Great quantities of it
where there was scarcely any-
thing else except shrubs. -

- *Styrax californica* - Hall has
just received a specimen from
the west side of the Santa
Ana Range. It is elsewhere
in Southern California.

- *Mirabilis villosa* in its fls
is strikingly like the Garden
barbana - School Note.

- Cont. no. 1561a. *Helianthus gracilentus*
Gray.
- Cont. no. 1533. *Trifolium obtusiflorum*
Hook.

- Cont. no. 1384a. This is of the same
field collection as Hall 1890. The
exact locality may be checked from
Hall's Field Book: Between Vandewater
Flat and Santa Rosa Indian Village!!

- *Samolus floribundus* H.B.K. River-
side. See no. 14, 581.

- *Echeveria edulis*, cf. no. 1590. The
petals are narrowly winged on back below.
See Barb. spec. The statement on p. 176
was an inadvertence or slip in the
field.

- Cont. from p. 138. no. 1534. = *Salvia mellifera*
Jepson.

- *Ellisia chrysanthemifolia* Bth.
Riverside. See page, June 1, 1901.
no. 20, 954.
16, vol. 61.

- *Neurophila menziesii* H. & A. var.
integrifolia Parish. Cont. no. 1537, p.
139 ante.

- *Hugelina virgata* var. *dasyantha* (Benth.)
Cont. from p. 155.
- ✓ No. 1583a. *Hydrocotyle umbellata*.
Riverside, June 1, 1901.

Hiatt's Orange Ranch, June 1,
c. 800 ft. Riverside. 1901.

- *Portulaca oleracea*; stamens 12+14.
- *Chenopodium ambrosioides*
- *Aragallia arvensis*
- *Plantago major*

No. 1584. *Heterotheca floribunda*(?)

Lower leaves ovate, petioled, the
petioles with broad stipule-like
auricles at base. Rays 24, 34,
26. - 3 counts.

No. 1585. *Atriplex bracteosa*(?).

Odor very heavy and noxious;
not diffusing widely but close at
hand "like a dead horse or
worse".

- *Sonchus oleraceus*
- *Rumex crispus*
- *Melilotus Indica*
- *Melilotus alba*, - *Magnolia*
Ariz., but a few plants seen.

Santa Ana River, Riverside.

- Ranunculus bymbalaria -
river bottom.
- Jussiaea Californica
- Psoralea macrostachya
- "Horsehound" (Marrubium vulgare L.)
- Cotula coronopifolia
- Baccharis Emoryi
- Ellisia membranacea Nutt.
- Oenothera sarmentosa var
californica
- Cotyledon laxa - on bank
- Sycamore Tree, River bottom
of Santa Ana River at
Riverside, fine tall sym-
metrical tree 80 ft. high
and with a perfect trunk
14 ft. 11 in. in circumference
at 4 ft. from ground. ^{cf. no.} 14, 871.
- Vitis ^{not} californica = V. girdiana Munson

June 2, 1901.

- Mr. ^{H.M.} Hall says that the finest ^{ancient} oaks that he ever saw are in a cañon of the Santa Rosa Ranch.
- Incidents of the trip: After using the saddle room at Van Deventer's for shifting plants and knocking around generally, the third day Charley Van Deventer said: You had better be a little careful there. There is a box of dynamite in the corner!
- I always wear, in the field, my knife attached by a buckskin string. Charley Van D. said it was the first time he had seen a San Franciscan with a buckskin string; they always had a great gold chain. "But

Riverside

The Professor is all right. I can see he is an old timer".

- In hurrying "to hitch up" at Santa Rosa Indian village I inadvertently got Duke's collar on backwards.

It looked funny and so I called Mr. Hall's attention to the mistake. Juan Acosta, a Mission Indian standing near, thought I was "poco loco"!

- At Elsinore they tried to sell me two bananas for 10 cents at the rate of 25¢ per dozen.

- Coming into Riverside we found a moving haymow in the road. It being inexpedient to get around it, Duke and Ceylum moved up close and took advantage of the opportunity.

June 3, 1901

- Mr. George Hall looks at my sunbrowned hands and says he thinks I'd make a good orange picker and offers me a job!

- *Tremocarpus setigerus* - low plants 6 in. to a foot or more broad, but often dwarfish and only 1 or 2 in. h.

- Variation:

(a) in number of stamens when over 5 especially.

(b) in line of stems, reddish or greenish, as *Astragalus Parishii*. Also affects calyx.

(c) size of leaves on sterile shoots, or young shoots, cf. shoots in burned chaparral.

- *Solanum douglasii* Duranl. Santa Ana River, Riverside. June 1, 1901.

San Bernardino

- *Isoraba orbicularis*; fls. ^{red} ~~brind~~ ^{the petals whitish toward base.}
- *Nicotiana glauca*, very common everywhere about towns and villages. - 15 ft. h.
- *Anemopsis californica*.
- *Rumex crispus*.
- *Melilotus indica*.
- *Verbena prostrata*.
- *Apium graveolens*.
- *Ambrosia pycnocephala*.
- *Bigelovia vneta*.
- Mr. ^{S.B.} Parish remarked in regard to the prevalence of new species nowadays that ^{J.M.} Coulter said it was easier to make a new species of *Peucedanum* than to refer it to an old species. Besides, said Parish, it pleases the collector!

June 3, 1901.

b.f.

Orcutt does not pronounce altogether distinctly. As he drove out of San Diego one day a schoolmarm ran out from her school to ask him to clear up some "knotty botanical point." He was thus the subject of curiosity on the part of the children and delayed besides. "And" - he grandly waved his hand - "so much for a reputation"! But one needs to hear Mr. Parish tell this story.

We have been discussing Orcutt's "Botany of Southern California". Mr. Parish thinks it will worth a dollar as a botanical curiosity!

San Bernardino

- *Juglans californica*, occurs in the San Bernardino Mountains from 2500 to 4000 ft. as a shrub, at most 12, 14, 16 ft. high. Several stems from the base. It also occurs below 2500, down to within a few miles above San Bernardino (about 1800 ft.).
- S. B. Parish.

- Dr. A. Davidson has returned to Los Angeles from Ariz, his contract with a mining company having expired.

- The ^{A. J.} Mcclatchies are still at Phoenix, where there is, I believe, an agricultural experiment station. The Mcclatchie "Baby" was the subject

June 3, 1901.

of great interest, in a way, at Throop. When it was still very young the Professor took it to his laboratory and allowed it to play around the floor, stopping at intervals to pull it out of mischief as it crawled about! Mrs. Parish thinks the baby may have been unpleasant to the students, and that this matter may have been a factor in the minds of the authorities when they reduced his salary to a figure that he could not well live upon it.

- It is hard to describe Mr. Parish
 - he is such a genial gentleman
 - perhaps no two words can better express my thought of him

San Bernardino

than these two. I shall never forget his hearty welcome - how sincerely and unaffectedly he took me in - and then began to talk in his quietly enthusiastic way of plants and botanists.

He must be sixty, for his hair and beard are quite gray - but he is vigorous and hale, and will go out for many years yet on botanical expeditions.

It was a most delightful afternoon - this visit to the Parishes - and then I went back to Riverside.

No. 1586. *Platanus racemosa*. Santa Ana River at Riverside. See note as to height and girth previously

San Diego, June 5.

The first person that I called upon in San Diego was Daniel Cleveland, a fine looking man as men go, tall, broad-shouldered head of white hair, white mustache, otherwise clean shaven. Blue eyes, large nose, strong face. He takes no active interest in botany but was glad to see me and glad to talk about plants and botanists. He described Orcutt as a fraud; is a man always trying to make money at the expense of other people. (Brandegee also says that Orcutt could have built up a big trade but that he never had a second order from a customer. Brandegee told him

San Diego

that honesty would be the better policy, but Orcutt who is a professing Christian replied that the crop of fools was perennial!). The two Orcutts and Marcus E. Jones went on a collecting trip into Lower California. They got back to the Boundary Line on Sat. night. The next morning the Orcutts proceeded to get ready to come into San Diego, some fifteen miles. Jones told them that he could not travel on Sunday as he had religious scruples. As the Orcutts wanted to see their mother they hitched up but Jones took out a pistol

June 5, 1901.

and forced them to get off the seat and unhitch the horse, although they offered to come back for him on Monday. No; and Jones proceeded to lay out his terms! Cleveland wrote up the incident for the San Diego Union, burning up Jones, but when he found out how cowardly the Orcutts were, how utterly pusillanimous and contemptible, he made no further effort for them.

- G. W. Dunn I met on the street today and went to his room with him, which is a regular naturalists den. He is 88 years old, with long white beard and mustache,

San Diego

but the sides of his face shaven. He is still vigorous and goes out to collect in the mountains, sleeping on the ground, and says that next year he intends to climb pine trees for cones, as usual! He was born in Seneca County, New York, and taught a school of 75 pupils when he was only sixteen years old. He has been a collector for forty years. He lost all his money, determined that he would not try to make any more, and turned collector! He has never tasted tobacco in any form, and does not drink any

June 5, 1901.

kind of liquors. He has made twelve trips to South America and would like to go again. He went to Guadalupe Island with Greene who was "terribly afraid to die," because of two little storms.

- The Brandegee Herbarium is in a fire-proof brick building. The building looks small but there is a good deal of room inside and it is filled with oak herbarium cases and bookshelves and piled up with boxes and bundles of plants besides. Their place is well out on Upper 5th st, or rather block west and about opposite the old Power House. It is between 4th and 5th sts.

San Diego

Pentstemon in the Brandege
Herbarium: -

P. labrosus Gray. San Jacinto Mts.,
A.W. Anthony, July 12, 1895
8500 ft. || Palomar, T.S.B., Aug. 1, '98

P. Parishii Gray. Cucamonga
Mts. June 1882, S.B. + W.F. Parish.

P. labrosus Gray, Southern slope
of the San Bernardino Mts.,
4000 to 6000 ft. June 29-30, 1895,
S.B. Parish.

P. Eatonii Gray. Morong King
Mine, San Bernardino Mts
and their eastern base, # 3149,
S.B. Parish, 16 June, 1894.

P. Rothrockii Gray, San Jacinto
Mountains, A.W. Anthony, July,
1895.

P. breviflorus Lindl. C.A. Pur-
pus, No. 5575, hillsides, Middle

June 7, 1901.

Jule River, 2-3000 ft. shrub

P. tenuatus Torr. ^{by} Yamaca Mts.,
San Diego Co., July 6, '94, T.S. Brandege.

P. densatus Torr. Gravelly slope, Little
Kern, C.A. Purpus. July. [96].

P. cordifolius Benth. Jannel Valley,
San Diego Co., Dr. E. Palmer, June 26, '75
No. 273.

P. corymbosus Benth. Near blower
T.S. Brandege, July, 1885.

P. breviflorus. Central Coast Range
north of San Luis Obispo, July,
1876, E. Palmer, M.D.

P. ambiguus, Torr. San Felipe, San
Diego Co., S.B. + W.F. Parish, June 20,
1882, 1389.

P. Kleei Greene. Ben Lomond, June,
1889, Brandege.

San Diego

- No. 1587. *Samolus Valerandi*.
 No. 1588. ^{Riv. Santa Ana River.} *Hydrocotyle*. " " "
 No. 1589. *Apium graveolens*.
 7 and 8 ft. h. Riverside
 No. 1590. ^{= Dudleya} *Cotyledon edulis* Brw.
 Leaves cylindric, tapering - thus
 differing from all the other
 Californian species. Petals
 white, a rather dull white
 but more of a white than
 any other species, I think.
 Petals rotately spreading
 from just below the middle,
 oblong-lanceolate; no distinct
 ridge on back. This flower is
 quite different in appearance
 from our Bay region
 species. There is scarcely
 any red, brown or yellow
 about the flower. - San Diego

June 7, 1901.

- No. 1591. *Chorizanthe fimbriata* Nutt.
 San Diego.
 - *Cotyledon pulverulenta* - San
 Diego. *C. laxa*, also here
 acc. to Mrs. Brandegee
 No. 1592. Grass. San Diego.
^{*Chalaris paradoxa* v. *praemorsa* Pres. + D. Gr.}
 No. 1593. *Perezia affesa*. " "
 No. 1594. *Cirsium californicum* " "
 No. 1595. *Malvastrum*. " " "
 No. 1596. *Ibionia maritima* Nutt.
 No. 1597. ^{Dudleya} *Sedum* ~~*suberosum*~~ S. Var.
iegatum (Wats.) Moran Mesa, San Diego.
 No. 1598. *Reseda* * * " "
^{*linifolia* Vahl}
 No. 1599. *Eryngium* * " " "
 (in low places or rocks dry)
 No. 1600. *Chlorogalum parviflorum*
 Wats. Mesas. San Diego
 No. 1601. *Oenothera cheiranthifolia* Hornem. Showy on the sand
 dunes at Coronado,
 var. *suffruticosa* Wats.
 * *E. jepsonii* C. + R. * * *Oligomeris lini-*
 No. 1 = *E. parisi* C. + R. *folia* Nees.

San Diego.

For three or four days I was most hospitably entertained at the Brandegees'. I slept at my downtown hotel but my days I spent with them. Beside the Herbarium Building they have on their large lot a cook house where Mrs. Brandegees prepares the meals in delightfully Bohemian fashion. Then they have their sleeping rooms in still another house. Mrs. B., while cooking, stops from time to time, to call her sickle-bills, play with her guinea-fowl, or feed her young quail. She is much given to birds. The yard has just been di-

June 8, 1901.

vided of all their cacti - the whole lot has gone to the St. Louis garden, to Trelease. The herbarium is in considerable confusion, being piled high with many disorderly bundles of books and papers. Mrs. B. says all this must be straightened out before her departure for San Francisco. Mrs. B.'s health is now such that she cannot live at San Diego but half the year. The climate suits Mr. Brandegees. It is to him I know a delightful botanical Arcadia. He works a little, lies in the hammock, and then for a change goes off to the desert or to Southern California.

San Diego

Mrs. B. says her flora is to be a two-volume affair and will be out in one year.

Mr. Brandegee is an interesting talker - altho he is rather reserved conversationally. He had many interesting things to tell about Lower California. He told a good story about ^{E.L.} Greene. About 1883⁹ - he gave me the exact date - he was near Canton City, in charge of an engineering party. One of the men showed him a Police Gazette. It showed as one of its illustrations Mr. Greene and the deacon of the Berkeley Church (St. Mark's), the rector with a raised chain ready to smash the deacon's head.

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There is a railway out towards Buynamaca Peak which I should like to go, but there is no more time. *Mimulus Clevelandii* grows there but it is no *Diplacus* at all according to Mr. Brandegee but rather an ally of *Mimulus Lewisii* so far as corolla form is concerned. It takes three days to make the trip - but it would be profitable to spend a longer time.

Hemizonia fasciculata is very abundant everywhere in San Diego this year. Mrs. B. says there was very little of it in previous years. Mrs. Brandegee does not think much

San Diego

of the railroad leading out toward
Buyamaca Peak. It stops
everywhere - the train does. And
if the farmer's wife has eleven
eggs and the hen is in the nest
the conductor stops the train
very obligingly.

I called upon Orcutt. He quite
fulfilled my ideal of Orcutt.
But I didn't anticipate him as
to appearance. He looks like a
Sunday-school teacher in
a country town - exactly!
It seems to me too bad
that I should have fixed
such types. But they are true
to life. Why is it that the
Sunday-school teacher
man in the country village

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was a man whom our boys had
no respect for as a work-day
work-day man? Because he
was milk and water. Orcutt has
no backbone. He looks it. He
hasn't "gut-ty". He looks it. He is
- but never mind. I really
felt a sympathy for him
in spite of these seemingly
harsh words, on account of
his helplessness. That is
why the Brandegee's assist him
in selling his plants. Orcutt
is 5 ft 8 or 9 in, rather spare,
rather thin as to face, full
English beard (reddish) and
has a rather weak nervous
grasp which indicates his
character. Brandegee says he
for lack of it.

Del Mar, San Diego Co.
c. 100 ft.

is a great egotist and might learn a great deal about his region but for this fault, he "knows too much already."

Brandegee I like very much. Both Mr. & Mrs. B. were very hospitable and very kind to me. Mr. B. went about with me and was quite at my service during my visit to San Diego. They lead a very Bohemian life at their establishment. They have no servants and go about things as the impulse moves them.

No. 1602 a. *Larix nuttalliana*
Greene. Determined at Kew in 1906.

June 9, 1901

^{Piney Torreyana Parrey Can.}
No. 1602. Torrey Pine. I saw no tree more than a foot and one-half through. The trees are scarcely noticeable in the landscape. From the standpoint of what has been written about them, they are disappointing. That is they are not a pronounced feature and give no character to the landscape. Their color aspect is a sort of cross between the lighter-colored ^{sort of} yellow pines and the digger pines. There are plenty of young ones. The first considerable lot of trees is to the northeastward of the railroad at the point it crosses Soledad River. The mesa falls off to the

Del Mar. c. 100 ft.

river and towards the ocean in deeply channelled hollows which are however very irregular and have little ridges and projecting points left here and there. I can only liken this erosion in general suggestion to the hollows of the hills found in the northern Sierra foot-hills made by the ^{placer} hydraulic miners. There are plenty of young trees. The trees bear cones in fair amount, considering their size and apparent age. A tree 7 ft. high had a cone. Broad irregular gulches are hard to describe. Trees mostly 15

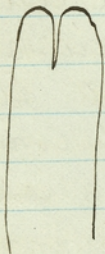
June 9, 1901

to 20 or 22 ft. high. The older trees have rather wide-spreading branches. They occupy the sides of these eroded arroyos. Across Soledad one climbs a hill to find them along the top of it in considerable numbers. The crest slope of to the ocean bluffs and in the hollows I saw a few semi-prostrate trees, a few that were branched in such way that they presented a slant to the wind. There was nothing to suggest such a struggle with the elements as clearly given out by the Monterey Cypress, nor did they

Del Mar, San Diego Co.
c. 100 ft.

Have broken or round tops. At least no one type predominated. The seeds are large, cones not so very large, not broken cones.

No. 1603, *Antirrhinum* ^(nuttallianum Benth.) Upper lip broadly oblong, erect (the sides turned backwards), emarginate or lobed thus:



Pedicles rather long. Palate closing throat! That is the lower lip may be depressed, as on a hinge, exposing

June 9, 1901

the throat and stamens. Corolla blue; spot on lower lip white, blue-reticulated. Two hairy lines on palate, running down into throat.

No. 1603a. *Phacelia* ^{ramosissima Dougl. var. subbracteosa Gray} *(coulterianum Benth.)*

No. 1604, *Antirrhinum* Spike with short-pedicelled flowers. Lower lip strongly "palate" as in preceding, but not closing throat which is very narrow but the anthers visible. Not closing throat, that is, the lip does not have to be pulled down to reveal throat and anthers. Upper lip deeply lobed, with the lobes divergent, as in the rude sketch:

Del Mar, c. 100 ft.
San Diego Co.



: the sides of the lips
are sometimes turned ^{inward}

backward.

No. 1604a. *Mimulus puniceus* (Nutt.) Steud. Det. A.L.G.

No. 1605. *Mirabilis* ^{= *M. laevis* (Benth.) Curran} *californica* Gray

Del Mar. One fl. to each involucre,
the involucre looking exactly
like a calyx and the calyx
like a corolla. Lobes of calyx
more deeply notched than
division between lobes. I
take lobes to ~~answer~~ be det-
ermined by position of green
midrib. Ovary ^{as is} inferior, 1-celled,
1-seeded.

No. 1605a. *Convolvulus cyclostegius* House.

No. 1606. *Mesembryanthemum*
crystallinum. Matting the
ground everywhere on

June 9, 1901.

bluff and hill slopes near the sea.
Ovary and fruit 5-celled.

- *Mesembryanthemum aequilatoriale*

I examined a good many
fruits and they were usually
9-celled, rarely otherwise.

^{S.B.} Parish tells me he has found
16 Sarcodes spikes from one
base. ^{↑ sanguinea}

- Brandlee speaks of the tend-
ency of plants in the arid
San Diego region to form a
globose root. Even trees start
out by forming a swelling
just at or below the surface
of the ground and then go
ahead.

- Mr. Brandlee thinks there ought
to be a Botanical Society of the Pacific Coast.

Del Mar, c. 100 ft.
Jepson

No. 1606a. *Arctostaphylos crassifolia* ^

No. 1607. *Ptiloria* ^{virgata} Dry hills, Del Mar.

No. 1608. *Hemizonia tenella*. ", "

No. 1609. *Gilia*. Skunk-like odor.

Navaretia hamata ^{Greene} Dry hills, Del Mar.

No. 1610. *Coronula* ^{soldanella L.} - Coronado

No. 1611. *Calochortus Weidii* ^{Wood} Dry hills, Del Mar.

Petals sometimes edged on outside with brown, sometimes not.

No. 1612. *Chaenactis*. Del Mar.

No. 1613. *Rhus integrifolia* ^{B. + W.} Sand-dune at mouth of Soledad ^{River}

No. 1613a. *Amblyopappus pusillus* H. & A.

No. 1614. *Cardionema ramosissimum* ^{(Weinm.) Nels. & Macbr.} Sand Mat. Dry hills

Del Mar.

No. 1615. *Perceданum lucidum*

Jepson. Del Mar. *Lomatium lucidum* japon.

June 9, 1901

[Mrs. ^{K.} Brandegee, she tells me, went to San Diego from San Francisco, to meet Mr. Brandegee who was returning from Lower California. They were married in San Diego and for their wedding trip they "walked" to San Francisco botanizing on the way. That is, they went by rail, and walking wherever it was attractive.]

No. 1616. Composite

No. 1617. *Nemacaulis denudata* Nutt. Sand-dunes, north of Soledad River, near Del Mar.

No. 1618. *Bryptanthra* ^{intermedia Greene} Del Mar.

No. 1619. *Lobularia maritima* ^{(L.) Desv.} " "

No. 1620. *Cotyledon* ^{pulcherrima B. + W.} " "

No. 1621. *Suaeda*. Habit of *Californica*! on beach.
See p. 199.

Los Angeles

Saw Dr. A. Davidson this morning. He has recently returned from Arizona, at Chilton. Typical Scotchman in many ways. Wears pointed English beard; fair complexion, bald head, tall, and slender rather than stout.

Called upon L.A. Greta but he was not in.

Braunton has quite a fund of information relating to Washington Palms, having studied them at Palm Springs for four or five years, while located there as a collector. He takes the trees to be about as old as they are feet high. He thinks that Wash-

No. 1622. *Solidago*. Suffrutescent.
On bluffs by sea at Del Mar.

June 11, 1901.

Myrtoma Sonora and *W. filifera* may be the same. There is so much unexplored country between the two that we may look for intermediate forms. The palms on the desert side, he says, are "Rincones" palms, that is they grow in watered spots on the desert level, as at Dos Palmas (2 palms), Seven Palms (all but three having been cut down), 27 Palms, 100 Palms - an approximation doubtless, as also 1000 Palms Caños.

There are the Palm Spring Indians, then up the level strip towards the cañon where it narrows there is a half-moon recess; here are the Rin-

Los Angeles.

cone Indians (Keen-cone); so we have the Canon Palms as in Palm Cañon and the Keen-cone Palms. These palms never grow where there is no water.

When they die of old age, the top falls off, preceded by a shrinking of the trunk. The trunk, when cut from a vigorous palm, does not decay or deteriorate but retains its strength.

The best way to get into the Buena Vista Mountains is by way of the Santa Clara Valley and Sespe Cañon.

Santa Barbara, June 12.

At this place I was most delightfully entertained by the Gregoris, driven about the beautiful country from the sea to the mountain. The Santa Inez Mountains enticed me very much but I had but a few hours to spend at this place. Sometime I must come here to botanize, for here Nuttall worked and also Douglas, as well as many later botanists.

P.S. Newhall's book on "Northern California, Oregon and the Sandwich Islands" Harper, 1877 contains interesting notes on the Redwood.

Berkeley

- Edition of my Flora of Western Middle California - about 1975. The contract was for 1000 but the Pacific Press ran one form short - for some reason or rather mistake. When the book appeared on sale at the Co-op Jurgens put out the sign "Jackson's Flora has Arrived" which provoked the students into inquiry as to what she was like! - May, 1901. The edition was ^{mainly} destroyed in the San Francisco earthquake, 1906.
- Coulter, Dr. Thomas. cf. Scribn. in Royal Geographical Journal Jan 1841. Gives vocabularies of Calif. Indian tribes coll. by Coulter.

- *Suaeda suffrutescens*.
no. 1621. See above, p. 173. Stigmas 3, arising from the margined or concave summit of a short style! Ovary glabrous. Stamens exserted! Lip about stigmas circular, very distinct.

- Douglas, David. For the location of many of his stations noted in his narrative see map to Parker's Exploring Tour Beyond the Rocky Mts.
- Parry, C. C. Govt Botanist. See Agr. Rep. 1870.
- In the Rep. just noted there is an article of great value on N. Am. Indian foods, written by Dr. Edw. Palmer.

Berkeley.

- *Mertia linearis*. Coll. at Las Trampas by Hall, Mar. 9, 1901. Petals 5, united at base, 2 large and 3 small, the 3 stamens inserted on base of the smaller petals. Petals of slightly unequal length, at first lilac-tinged, in full anthesis white. Filaments inserted at base. Ovaries 3. Petals slightly exceeding sepals.

- *Mertia chamissonis*. Coll. at San Rafael, Kellogg & Harford, Mar. 14, 1878, in Herb. Cal. Acad. Sci.

Notes taken Jan 6, 1901

- Augustine Ranch, San Diego Co. Cont. from p. 126 et seq., ante.

After forty-three years my memory of this ranch and the trip from the ranch up to French Valley and Palomar Mountain is extremely vivid. Many details stand out very sharply. In all these intervening years I have, however, tended to put the ranch closer in to the main mountain mass of Palomar than it really was. We drove directly to the ranch, no great distance, from Aguanga, through Aguanga Valley, cutting across the Temecula-Oak Grove road (along Temecula Creek) south into the edge of the hills (north foothills of Palomar) a short distance from Aguanga, say a mile and a half, just over the San Diego ^{County} line a short distance. I take it the ranch house is the one shown at the end of the road on the Ramona quadrangle, situated on Cottonwood Creek. From this ranch house a trail is shown ^{on the map}, the trail we followed, to French Valley. We rode horses

and took a day to go and a day to come back - so the distance from the ranch house was considerable. When we came into a meadow valley, Cootea, see p. 134, we were enchanted with it! I have now found this name on my map. I now wonder if Augustine, the rancher, who gave us the name could have pronounced "Hut Cut Valley" (see Ramona quadrangle) in such a way that I misunderstood or got the wrong pronunciation? Hut-cut Valley lies just where I describe Cootea as occurring in my Field Book narrative or about. One can pronounce Hut-Cut with the first u long, so as to be pretty close to my rendition as noted in my narrative. - June 6, 1944. Cootea is pronounced Koot-ka. See p. 134 ante. As I reflect further on the matter it seems that the spelling Cootea must have been given us by Augustine since I would not have undertaken to spell the name Cootea and add its pronunciation as Kootka. Undoubtedly we talked to Mr. Augustine about Cootea Valley.

He said: "There is only one thing wrong with Cootea. It does not belong to me!" Augustine, nevertheless, may have been uninformed as to the true spelling and I still feel that Hut-Cut is probably the real orthography. - June 8, 1944.

I now find a plant, *Mimulus brevipes*, collected on Palomar Mountain by Ira L. Wiggins who writes on his label "Coca Grade"! This seems rather to complicate the matter. - Sept. 13, 1944.

6

1900-01

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1622